PENNSYLVANIA SCHOOL JOURNAL.

VOL. III. LANCASTER, PA., NOVEMBER, 1854. NO. 5.

THE SCHOOL JOURNAL.

PUBLISHED MONTHLY.

THO. H. BURROWES, Editor.

☞ Topics suggested for discussion in this Journal, though not intended to exclude any others which correspondents may prefer:

School and District Libraries.
The best form of a School Register.
Normal Schools.
Graded schools in Rural Districts.
School Apparatus.
The teaching of definitions.
The Heating and ventilating of school rooms.
Daily preparation by Teacher for his school room duties.

State Superintendent's Decisions: The absence of Mr. Dieffenbach, Deputy Superintendent of Common Schools from Harrisburg, deprives us of the usual monthly synopsis of decisions. We hope to resume them in the next No.

Monthly Report: Messrs. *Murray & Stoek*, of this city, have prepared and published the form of report enjoined by the 27th section of the school law of 1854. It is in conformity with that lately recommended by the State Superintendent, and will save teachers much trouble. It is on a large sheet of capital paper, appropriately headed and neatly and accurately ruled for a school of 70 scholars:—Each sheet, of course, containing the school report for one month. Price, 6 cents the single copy, or 50 cents a dozen.

Messrs. Penny & Cox's addresses, delivered before the Conemaugh Institute were duly sent for publication in the Journal. The former will be found in this No., but Mr. Cox's, owing to its great length and the foreignness of its subject—"The laboring classes"—to the object of this Journal, cannot be inserted. It is a production of great power and beauty, has been read with much interest, and is only declined for the reasons just given.

The Fayette "Teachers' Institute:" We neglected to announce that the interesting little educational Monthly, heretofore published at Brownsville under the title of the "Union School," has been changed to "the Teachers' Institute;" and as the organ of the Fayette Co. Teachers' Association, is doing, as all such county efforts do, capital service in the cause.

Tutor and Pupil: The first No. of a monthly periodical under this title has just reached us. It is published at Chambersburg, Franklin co. by Messrs. Kell & Kinneard, at 50 cents a year, though its size and matter, judging from the specimen in hand, are well worth twice the sum. We hope no teacher in Franklin co. will be without it, and that they will also sustain it by their pens.

THE N. Y. TEACHER.

This able laborer in the cause and creditable organ of the Teachers of New York, has reached us much improved in form and size. Of the matter it is too soon to judge; but it must be very good, indeed, to excel its former self. It now contains 48 large single column 8vo. pages, and is the largest educational periodical in the United States except this Journal. On the principle of making up in size what may be lacking in quality, we cannot let slip the opportunity of saying that the "Pennsylvania School Journal" contains at least one-fourth more matter than even the enlarged N. Y. Teacher, and twice as much as any of the others.

The N. Y. Teacher is edited by a resident Editor (at Albany,) and a committee of twelve Teachers appointed by the State Association. The price is, as heretofore, One Dollar; and a dollar could not be better laid out than for it.

Delaware Movements: We have just been favored with a pamphlet of the proceedings of the "nineteenth annual school convention of New Castle co. held at Wilmington, Del., Sept. 5, 1854." *W. Hall*

whose name is well known in connection with educational matters, was President; and amongst the members appear the names of Dr. *A. H. Grimshaw*, *Wm. Travis* and *A. M. Wiggins*, formerly of Pennsylvania, but now doing good service in the "diamond State."

Among the measures adopted were the appointment of a Superintendent to "visit the schools of the county during the ensuing winter, and to make report to the next meeting of this body," and the determination to publish a "School Journal." Both are moves in the right direction, and will effect such a change in one year as will astonish their projectors.

The committee to edit the Journal are Dr. Grimshaw, Wm. Travis, W. T. Alrichs, Pusey Wilson, Wesley Talley and the President, Willard Hall.

OPENING OF THE FALL CAMPAIGN.

BERKS COUNTY IN MOTION: On the 17th ult. a large number of teachers and friends met in the Reading High School, and, after due consultation, determined to call a convention of the teachers and friends of education of Berks, to meet in Reading, on Thursday, 29 December, to form a County Educational Institute. Three committees were appointed:—one to address teachers and others and invite their attendance; one to secure accommodations for the members from a distance; and one to invite speakers and lecturers. Mr. GOOD, the County Superintendent was in his right place as President of the meeting; and we notice the names of some of the best teachers in the Reading schools on the committees. This is the proper move, by the right men, and must have good results.

LANCASTER COUNTY: If Lancaster city can't beat Reading city, in the number of votes *polled*, the county can beat Berks in the number of Institutes *called*. One Institute won't now "begin to hold" all our Teachers, so the County Superintendent, instructed by a vote of the Teachers, has called *three*. See the call in another page; and see to it, Teachers of Lancaster county, that the call be fully responded to.

WASHINGTON COUNTY: The proceedings of the meeting at *Florence*, in this No. taken from the educational department of the *Washington Review*, and many others recently held show the kind of spirit aroused in Washington. Directors and Teachers there are nobly sustaining the County Superintendent; and the press and the people are also doing their part. All will have their reward,—at home in benefit to their children, and abroad in the reputation of the county.

CUMBERLAND COUNTY seems also to be earnestly in motion. A county meeting has been held, the proceedings of which came too late for last, but are inserted in this No.; and a committee has been appointed to arrange for a County Institute. That sterling friend of the schools, Ex-Gov. RITNER, presided, and Deputy Superintendent DIEFFENBACH was present. Mr. SHELLY, the County Superintendent, was of course at his post.

PERRY, too, held a county meeting at Landisburg on the 26th ult. and the members present determined to have another meeting in December, preparatory to the holding of a Teachers' Institute. The right spirit is at work there, though the attendance was small. The proceedings of the meeting are too late for this No. but with the Address shall appear next month.

ADAMS, though at the head of the alphabetical list of counties, has not heretofore been high up in the educational. Under the lead of her spirited County Superintendent, she now, however, seems determined to take her proper rank. The first County Convention of Teachers will take place at Gettysburg on the 11th inst., and a good time is expected.

THE CRAWFORD COUNTY Teachers' Association held a spirited and profitable Institute at Titusville—4 days—commencing on the 2d ult. The address by Prof. Martin, of Allegheny College, (how we like to record the presence of college professors at common school meetings!) is highly spoken of by all.

CONEMAUGH TEACHERS' INSTITUTE: In this No. will be found a pretty full synopsis of the proceedings of this body, at its late meeting, the materials for which were kindly furnished by two of the members appointed for that purpose by the Institute. As the Conemaugh Institute this body will meet no more; but in its place and out of its members, *two* will be formed, one for Indiana and one for Westmoreland county. The proceedings of the teachers of the latter county, also published in this No. show that they are alive to the subject.

ERIE COUNTY: A Teachers' Institute, under the direction of W. H. Armstrong, Esq., Co. Superintendent, commenced in Erie on Monday, 15th ult., and continued till the following Saturday. About seventy teachers were present. Prof. J. F. Stoddard, W. Putnam, C. Otis, D. P. Ensign and others were Instructors. The Institute is represented to have been interesting and successful.

WAYNE CO.: During the last week in October, an Institute was held at Honesdale, in Wayne county, by Prof. Stoddard, the County Superintendent.—Eighty Teachers were present. To their credit be it said, all the female teachers of the county were in attendance.

DAVID S. KIEFFER.

The name of this well known and valued correspondent of the Journal, will meet the eye of its readers no more. On the 9th of October, 1854, in the 37th year of his age, and in the midst of his usefulness, he died, after a brief but severe illness, leav-

ing few to compare with him as a teacher. For the profession he was eminently qualified both by nature and acquirement; and though his career in it was brief, it was unusually successful. Unlike most teachers, it was not till after several other avocations had been tried, that this was embraced: and then, we believe, more as a matter of temporary convenience than with the settled design of making it a life business. But, from the first, his success in governing and in exciting an interest and love of learning, joined with a clear and ready power of imparting instruction was so complete, that it at once became apparent that this was his proper sphere.

He was among the first and the most energetic and persevering in originating and sustaining the educational movement, now so forward, in this county, and was, from its organization till the day of his death, Recording Secretary of the County Association.

He was chiefly distinguished as one of those persons who built up the cause of the common school in Strasburg township, (where he died in the harness) and by whose perseverance and talents, sustained by a Board of Directors of more than ordinary firmness and liberality, the township has been placed at the head of the school districts of the county: his case adding another instance to the long list of teachers whose example is not confined to their own school, but has carried light and improvement to the whole region in which they labored.

Long will the "Sandstone school" be associated with the name of KIEFFER, and many a youth will delight to trace the love of knowledge to his kind but clear and methodical teachings.

SCHOOL AND DISTRICT LIBRARIES.

We have this month placed at the head of our columns a list of subjects, upon which the correspondents of the Journal are respectfully requested to write. This list will be added to and changed from time to time, as occasion may require. On some of these topics we have already given our own sentiments, and on others shall probably hereafter also venture an opinion. But this should not and we hope will not deter others from discussing them. If they and we differ, the chances are at least equal that their opinions may be the more correct. If we agree, still let them write; for their different reasons in support of the same sentiment will only add strength and interest to the conclusion.

At the head of these topics is that of School Libraries; and we hope it will be fully discussed, in all its bearings. It is a fruitful subject and one presenting many aspects. The propriety of such collections; the mode of making them; the best regulations for their use; the kind of books to be embraced; their influence on the mind and tastes of the vicinity;—these, and many more branches of the subject, will admit of and now require discussion.

Heretofore we have been often requested, by intelligent friends, to agitate this question. But really we could not see that the time for the establishment of free libraries had arrived, or that adequate good would result. So many premature efforts of this kind had been seen—all originating in the best intention and carried on, to a certain point, with the greatest zeal and promise of ultimate good, but nearly all terminating in failure and abandonment—that we could not take the responsibility of recommending the investment of any more of the educational capital of the State in this manner. The desire for the books, with the determination to use them aright, did not seem to exist; and in their absence the mere ranging of books on shelves and the opening of a door to the room where the shelves were, without some prospect of applicants for admission, seemed a slender justification for the undertaking.

True, it may be said, as it has often been said that even though the desire to read may not exist, the very offer of the books will beget that desire. This may be the case; but, if so, we have never witnessed it. On the contrary we have, in every case of the trial, witnessed the reverse.

But now a different feeling seems to be abroad.—A very general and perceptible, though as yet small movement in the whole world of mind has taken place amongst us. And though that movement doe not yet amount to a revolution or even a strongly marked change, still it has been made and is the unerring precursor of such a desire for more knowledge, as will, beyond question, in time demand every available means for its gratification. Among these means, none will be more ready, more cheap, or more efficient than the school or the District Free Library.

It will, no doubt, be some time before this change shall be sufficiently advanced to call generally for libraries, and other increased facilities for the acquisition of knowledge. But it will also take some time to discuss and establish those facilities. Hence, we suppose the present to be a propitious juncture for the discussion at least, and the mode proposed to be the most appropriate.

NOW FOR PERMANENT CERTIFICATES!

In many counties the examination of Teachers, by the County Superintendents, is over for the present year; and in all of them enough has been elicited to show that the number of temporary certificates granted is large, while few permanent ones have been obtained. This was expected; and it fully justifies the construction of the act of 1854 under which two grades of certificates were issued. It was a wise measure, and saved hundreds of schools from being

closed during the present year for want of teachers. But every teacher holding a provisional certificate should now bear in mind that it is only a temporary expedient to get over a present difficulty, and to prevent the harsh and unjust operation of the law; and that next year a different state of things will exist.

We are not prepared to say that hereafter nothing short of a full certificate will be granted. Others must settle that question. But if we were a County Superintendent, we most certainly should neither grant a provisional certificate next year to any one who had failed to make marked progress in the branches required by the law, nor who, even with this progress, had manifestly failed of success in teaching.

Whatever may be the course adopted, however, it behoves all who wish to continue and to stand well in the profession, to work during the coming winter and spring. *Now is the time.* While *teaching*, let them also *study* to fit themselves not only for higher rank and higher usefulness hereafter, but also for greater usefulness during the present year; for, if each carefully study over the lessons of the next day during the long winter evenings, he will not merely add to his own store of knowledge for next year's examination, but will be enabled, more satisfactorily and successfully, to instruct his present school. "Study to teach" is always the teacher's maxim; but now more tha nerve it should be in his mind.

Teachers' Schools.

[There are a large number of literary institutions in this State, in which professional instruction in the art of teaching, as well as in the branches of learning necessary to the teacher, is given. In the absence of State Normal Schools, these are the only opportunities afforded for the acquisition of this kind of special training amongst us. And even after State Normal Schools shall be estabishad, they will be valuable and resorted to. We now commence a list of them, with brief descriptions derived from reliable sources; and shall from month to month continue the list, as we shall be able to obtain certain information.—Ed.]

Harford University, *Harford, Susquehanna County, Pa.*

This is and has been from its commencement emphatically a normal school. It began under the Rev. L. Richardson its present President in 1817. It was chartered as Franklin Academy in 1830, and the charter was extended to embrace university privileges in 1849. The age of students ranges from 15 to 25. The number of students male and female in the course of the year amounts to 160, and the larger part engage more or less in teaching. Forty young men have left the institution in one fall for New Jersey and Central and Southern Pennsylvania, to engage in teaching. It is in fact, an *independent* Normal School, where pupils are thoroughly fitted for teaching, either to make it a permanent employment, or by it to gain resources for future advancement in education; and it has educated not only the teachers of the county but also of the surrounding country.

Meadville Academy, *Meadville, Crawford County.*

A prime object of the board of instruction in Meadville Academy is to educate teachers; and for that purpose all the recitations are conducted in a most thorough and searching manner.

A teacher's class is formed at the commencement of the session. Weekly lectures upon the theory and practice of teaching are deliverod by the faculty.—This class will be normal in its character, the members being drilled daily in the matter of teaching.

Not only the experience of the teachers of the Institution is brought to bear upon the students, but the County Superintendent pays occasional visits, making suggestions or criticisms as he may think proper.

The teacher's course in operation, though short, embraces more than is required by the late school law. Thoroughness is the grand feature in this course, so that he who has conquered this is well prepared to go on to more advanced as well as more difficult studies, without much aid from teachers.—The instructors endeavor always to throw scholars upon their own mental resources as much as possible.

Excellent facilities for studying Music, Drawing and Painting are enjoyed by those who desire them.

T. F. Thickstun, *Principal.*

Lewistown Academy, *Lewistown Mifflin co.*

This Academy has a department taught by the Co. Superintendent, R. C. Ross, A. M., and his Assistant Teachers. This gentlemen spent some time among the schools of Europe, and took the course of studies required for teachers, in a Normal School in France. A Female department is attached to this school, in which young ladies who expect to teach, are taught, in part, by experienced female teachers. Drawing is taught to the whole school by various methods.

University of Northern Penna., *Bethany, Wayne co.*

President, John F. Stoddard, assisted by seven other Instructors. A main object of this institution is the preparation of teachers. A clear idea of its standing and scope of studies is given in the following report of a late examination of its students:

REPORT.

The examination was conducted by the President and Professors having charge of the different sciences, and in addition to the various branches of a common English Education, embraced Algebra, Geometry, Trigonometry. Mensuration, Meteorolo-

gy, Natural, Intellectual and moral Philosophy, Chemistry and Natural Theology; and we must say the pupils sustained an examination which we have seldom seen equalled and never surpassed. In all the questions proposed by the Instructors or Committee, they evinced a readiness and thoroughness which is highly creditable to the pupils, to the teachers, and to the Institution over which these teachers preside. They have evidently not only *studied* the various sciences to which their attention has been directed, but have acquired a thorough and practical knowledge of them. In Geometry the propositions were recited and demonstrated, either in course or promiscuously as they were named, with remarkable accuracy; and in Natural Theology, the existence of a God was proved, and the cavils of infidelity answered, with a readiness which we have seldom seen surpassed even by the Theological student. In all their studies, the pupils seemed to have acquired a very commendable degree of proficiency.

In concluding thesr report, the Committee would commend the University of Northern Pennsylvania to the continued confidence of an intelligent public; and recommend that to Mr. Harry Brodhead and Miss E. Augusta Dart, having completed the course of instruction designated in the Normal Department, and having sustained during their course a good moral character, be awarded a Teacher's Diploma.

All of which is respectfully submitted.

Henry Curtis,
Edmund L. Reed,
Elias O. Ward,
On behalf of Trustees.

Bethany, March 10, 1854.

[Since the above was in type we received with regret the following:

The indebtedness of the University of Northern Pennsylvania, of which John F. Stoddard, A. M., had been appointed President for a term of ten years, being so great as greatly to embarass its operations and prevent the board of trustees from making such additions to the buildings as the growing popularity of the school demanded, Prof. Stoddard has resigned his position.

During the three years in which he has been at the head of the institution, it has steadily advanced in reputation and usefulness, and in his resignation it has met with an irreparable loss. Soon after he took charge of it, a normal department was established for the professional training of teachers, which has been instrumental in greatly elevating the standard of qualifications for teachers, and has already had a marked and beneficial effect on the character of the Common Schools within the circle of its influence. The schools of the county also, are likely to lose the benefit of Prof. S's. supervision, as the meagre salary allowed the County Superintendent, can scarcely be expected to induce him long to retain that office. The following is a copy of the preamble and resolutions (as far as they relate to the present subject) passed by the board of trustees on the reception of Prof. Stoddard's resignation:

Whereas, Professor John F. Stoddard has this day tendered his resignation as President of the University of Northern Pennsylvania, over which he has presided for the past three years, with marked ability and extraordinary success;

Resolved, That his resignation is accepted with regret, and that we entertain for him a high respect, and regard him as a man of unexceptionable moral character, a good, thorough practical scholar, and a teacher pre-eminently skilled in the science and art of teaching.

Resolved, That we consider the normal mode of instruction, as practiced by Professor Stoddard, the best and most efficient method of preparing individuals for the teacher's profession, and the most effectual means of promoting the general diffusion of literary and scientific knowledge.

By order of the Board.

N. B. Eldred, *Chairman.*
E. W. Hamlin, *Treasurer.*
P. G. Goodrich, Secretary.

Book Notices.

Quackenbos' Composition & Rhetoric: Advanced course of Composition and Rhetoric: a series of practical lessons on the origin, history and the peculiarities of the English language; punctuation; taste; the pleasures of the imagination; figures; style and its essential properties; criticism, and the various departments of prose and poetical composition;—illustrated with copious exercises. Adapted to self-instruction and the use of schools and colleges. 450 pp. 12mo. G. P. Quackenbos, A. M., &c. New York: D. Appleton & Co. 1854.

The comprehensive title of this work leads the the reader to expect a great deal from it; and, judging from the examination we have been able to give it, he will not be disappointed. It is full of useful matter, in good language, and well arranged.

Stoddard's Arithmetics: viz: Juvenile Mental Arithmetic—72 pages—12½ cts.; American Intellectual Arithmetic, 164 pages, 20 cts.; Practical Arithmetic, 40 cts., half bound, and Philosophical Arithmetic, 50 cts.—the last named *having neither rules, answers nor key*,—by J. F. Stoddard. New York: published by Lamport, Blakeman & Law. 1853.

The first two works of this series form a complete treatise on the subject of mental and analytical arithmetic; the last two are no less thorough treatises on written arithmetic; and each book of the series is progressive and adapted to the others—the whole forming a complete course in common Arithmetic, which has found great favor with teachers.

The Student's Series of Readers: Reading books for common and other schools, from No. 1 to No. 5—forming a complete series. By J. S. Denman. New York: Pratt, Woodford & Co. 1854.

This series, in our estimation, will compare favorably with any other in use. The fifth or last reader, in addition to an able treatise on the principles of Reading, has the merit of presenting an unusual number of pieces by American authors, in its selections.

Willson's Outlines of History: Outlines of History; illustrated by numerous geographical and his-

torical notes and maps; embracing, Part 1. Ancient History. Part 2. Modern History. By Marcus Willson, author of American History, History of U. S., &c. 600 pp. 12mo. New York: Ivison & Phinny. 1854.

A leading feature in this work is the attempt to keep the student's attention chiefly fixed on the most important nations of each era, and on the most prominent events and men of each nation, allowing minor characters and unimportant details to remain in merited obscurity. This design, in which the author has been successful, enables him to give fuller pictures, as he proceeds along the course of time, than would be otherwise practicable, and adds very much both to the value and interest of the book.

Original Communications.

HOW IT IS DONE IN WASHINGTON COUNTY.

FRIEND BURROWES:—You have been kind enough to mention our county as one of the pioneers in educational reform. If it be true, it will not be deemed vain to give you an account of our mode of operations, that others may imitate us in good works; or if not, that others may be stimulated to give a report which will give us new light, and infuse more spirit by increasing our desire to excel. Our county has a considerable reputation for her educational facilities, having within her limits two old and venerable colleges, Washington and Jefferson, whose alumni are found in every State in the Union; three female seminaries, whose halls are graced by goodly numbers of the fair, and several academies of lesser fame. But these form the vertex of a pyramid whose base is broad, and whose foundation extends over society at large. The glorious system which has for its object the education of all, down, away down to the lowest stratum of humanity, is the base of this pyramidal structure, and it is on this widely, deeply laid foundation that I am happy to greet you, as an ardent and efficient co-laborer. It needs no demonstration to prove the excellence, nay the absolute necessity of the schools of higher grade for the advancement of those whose means and tastes would impel to greater acquisition; yet the most superficial observer cannot fail to perceive how inefficient they are to meet the educational demands of society at large. It is to the glorious "Common School" we must look for the improvement of the common minds and morals and manners of our people.

I am proud to say, that, while our people esteem with usual favor the higher schools in our county, it is evident that they do not intend these to monopolize their attention and kind regard. The common school is created to supply a want for which no other institution is capable, and all that is necessary to secure the public co-operation in its improvement, is to demonstrate clearly the means by which that end may be accomplished. It is not by florid essays on "Education," in school-boy style, that a reform is to be wrought, for all are convinced of its excellence and necessity already; but it is by practical, common place, unpoetical instruction in the art of conducting school that the popular mind will be properly affected. Demonstrate, for instance, that by classification and the use of the black-board, you can teach more in one hour, than can be taught otherwise in a week, and popular favor and co-operatian, and funds too, are at your service.—But, I beg pardon, I started out to tell of the way the Superintendent and your humble servant have endeavored to operate in Washington county.

Having one or two columns of a weekly journal at our service, it is announced that a meeting will be held in a certain part of the county, that teachers will be examined then, and the Directors and people are invited to attend.

At the appointed time the examination of the teachers takes place, which usually occupies about three or four hours. After the examination is over and while the Superintendent is preparing certificates we have generally taken the stand to address the meeting on some subject connected with the improvement of the schools. We demonstrate the insufficiency of the most of our school houses to accommodate, with proper regard to health and comfort, the children which are confined, prison like, within them. We show off the old-fashioned school house, schoolmaster and school, in all their naked deformity, and with them in striking contrast place the modern and improved styles of taste and teaching. Always provided with singing cards, tables, little globes, &c.—tools of the teaching trade—for illustration, we exhibit their use, their economy of time and teaching and speak of the value of classification, and the utility of the union school. Our object is to illustrate practically the necessities of the school room, and in doing this, of course we never fail to recommend to teachers the "Theory and Practice," "Teacher and Parent," and last but not least the "Pennsylvania School Journal," copies of all of which we carry with us as eminently worthy of their perusal and study. When, from a half to an hour and a half is thus spent, as the case is, the Superintendent takes up the theme, in many of its various parts; and thus it is the effort for reform is made in Washington county.

About twenty public meetings have been held in different sections; upwards of forty addresses made; upwards of 550 miles traveled over in the county; and two hundred and fifteen teachers examined and passed by the Superintendent. At some of our meetings we have had one, two, and in two instances between four and five hundred people. The people

only need to know what to do and how, and our schools must flourish.

Thus we have narrated briefly our mode of dissiminating information among teachers and people. The Superintendent contemplates holding a little institute in each district during the coming winter and spring; and if the fruits already exhibited are an earnest of future fortune, ours will, we hope, be an abundant harvest, and sustain the character you have given us and make us worthy of Washington whose name we bear. A. M. G.

Washington, October, 1854.

ARITHMETIC—RULES.

Many eminent teachers deny, or question, the utility of rules in Arithmetic, except for operations depending upon Algebra or Geometry, as questions in cube root, &c. This is a subject of no small importance and doubtless teachers are liable to go to extremes on this question, as well as on others.

The chief objection to rules is, that pupils, instead of learning general principles and applying them to the solution of questions, merely learn to solve them by special rules, and consequently do not exercise their judgment or learn to depend upon themselves.

It is a fact worthy of consideration that pupils thoroughly drilled in Mental Arithmetic (where no rules are used) always make the most thorough and independent scholars.

Without entering into the discussion of this question, in general, I propose to make a few remarks upon the subject, and show that there are cases in which it would be far better to give no rules, but leave the pupil to apply principles which he understands—that is, to deduce from these principles, rules for the solution of questions involving them.

I think it may be assumed that no special rules should be given for the solution of questions involving no new principle. For example, suppose the pupil is required to find the superficies of the frustrum of a cone or pyramid. I take it for granted, that such a question would not be given to a pupil who does not already know, (or is not shown at the time) what the frustrum of a cone or pyramid is; or who is ignorant of the rules for the calculation of the area of circles and trapeziums, or of the principles upon which the operations are founded. Then, if he knows how to calculate the areas of squares, trapeziums, and circles, there is no need of any special rules for the solution of such questions; indeed, it would not only be useless, but injurious to give special rules in such cases. Yet we find, in all the text books, rules for solving such questions; and not in this case alone but in hundreds; rule upon rule is given as though the pupil were a mere machine, incapable of thought and reflection: This is, undeniably, the chief cause, why so few pupils understand the reason —the "why and wherefore"—of their operations.

Again, suppose a pupil finds a question in his arithmetic, involving the principle, that "the areas of all similar figures are in proportion to the squares of their like dimensions." The teacher should thoroughly explain this principle, (and he can easily do this upon the blackboard) so that the youngest pupil can understand it, at least as respects the square, and parallelogram. He can also, by means of the square, show that the ratios of the like dimensions may be used instead of the dimensions themselves. In the same manner, he should show that the reverse of the proposition is true; namely, that the like dimensions will be, in proportion to the square root of the areas, or of the ratios of these areas.—Example: if the area of one square, parallelogram, or other rectilineal figure, be 4 times the area of a similar figure, then the like dimensions will be only twice as large, because the square root of 4 is 2. This may be explained by making a square upon the blackboard and dividing it into any number of equal squares, say 4, 9, 16, &c.: It will then appear evident to the pupil (as he has ocular demonstration of it) that one side of the large square is 2, 3 or 4, &c. times as long as a side of one of the small squares, while it contains 4, 9, or 16, &c. times as much area. Of course, with advanced pupils these illustrations would not be necessary; but such illustrations should be given some time in the course of the pupil's journey up the hill of science.

Such illustrations, while they amuse, also instruct the pupil—bring into active exercise his thinking powers, and cultivate the reason, judgment and memory; while a rule would only be committed, (if committed at all) to-day and forgotten to-morrow, when a new one is learned, which perhaps involves no new principle. This, in turn, must be swallowed up in the sea of oblivion,—the chaos of half-remembered or entirely forgotten rules,—forgotten, because of the countless number of them committed to memory without understanding the principles. The principle is what the pupil wants and not the rule.

But to return: If the pupil understands these principles, respecting the areas of similar figures, what is the use of rules? They only divert his attention from the principle, and frequently prevent him from solving them by the shortest method. In some Arithmetics, one rule is given for circles, one for the square, &c., while any rule is unnecessary.—It is an injury to the pupil if he understands the principle; if he does not, it is an injury to both teacher and pupil, and tends to make superficial scholars and superficial teachers.

I find a very good illustration of this in an Arithmetic before me. "To find a circle, which shall contain 2, 3, 4, &c. times more or less than a given circle," the author gives the following

RULE:—"Square one of the dimensions of the given circle, and, if the required circle be greater, multiply the square by the given ratio, then the square root of the product will be the like dimension of the required circle; but, if the required circle be less than the given one, divide the square by the given ratio; then the square root of the quotient will be the similar dimension of the circle required."

This rule is faulty in several respects. First, the principle is equally applicable to rectilineal figures, while he has given a special rule, applicable to circles only.

2d. He has not even left it to the judgment of the pupil when to divide, and when to multiply by the ratio.

3d. He has not even hinted, in the rule, or in any note, that, when the ratio is a perfect square, the process may be much shortened by multiplying or dividing (as the nature of the question may require) the given dimension by the square root of the ratio. And the pupil, with this rule before him, is, in fact prevented from exercising his judgment at all, there being not one pupil in a thousand, that would even solve the questions differently from the method indicated by the rule. Yet every example which he gives, may be solved simply by multiplying or dividing by the square root of the ratio, as the ratio in each example is a perfect square; and, moreover, every question may be performed mentally.

EXAMPLE: Find the diameter of a circle which shall contain $\frac{1}{4}$ of the area of a circle of 42 feet diameter. Ratio, $\frac{1}{4}$, and the square root of $\frac{1}{4}$ is $\frac{1}{2}$ and $\frac{1}{2}$ of 42 ft.=21 ft. Ans. By the rule it requires 27 figures to solve it.

2d Ex. What must be the circumference of a circular pond, to contain 4 times as much surface as a pond $1\frac{1}{2}$ miles in diameter. Ratio 4 and sq.R. 4=2, & 2X$1\frac{1}{2}$=3miles. Ans.

3d Ex. Find the diameter of a circle, which shall be 36 times as much in area, as a circle of $18\frac{3}{4}$ rods diameter. Ratio 36 and sq.R.36=6, & 6X$18\frac{3}{4}$=$112\frac{1}{2}$ rods. Ans. By the rule, it requires 102 figures to solve it.

The method by which I have solved these examples is not only much more expeditious, but the principle is also more easily explained, than the rule given in the book; and whenever the square root of the ratio can be found mentally, I prefer this method. If time is of any value, we should take that into consideration, when the saving of it does not interfere with the proper development of the mind; and especially should we be economical when the saving of it would directly benefit the mind, and indirectly by giving more time to pursue other studies.

The same principles being applicable to solids, substituting *cube* and *cube root* for *square* and *square root*, it will not be necessary to give the pupil so much instruction upon questions relating to solids, and the principle may be readily explained by means of one inch cubical blocks. First, setting one apart, then forming a larger cube with 8, 27, &c. and comparing them with each other; and the pupil will see that the number, in *each*, will be in proportion to the cube of the number of blocks or inches on one side; and that the number of inches on a side will be in proportion to the cube root of the number of blocks in each collection. Having done this, let the pupil solve questions involving the principle, without any rule. Simple questions should be given at first; then the more difficult and various, embracing questions of every kind, involving the principle, until the pupil is able, not only to solve questions, but to propose others to the class. This is a good exercise for the pupil, as it interests him, cultivates his judgment and teaches him to discriminate closely.

But suppose the pupil is required to find the area of a circle; it cannot be expected that, without any previous knowledge of the circle, he can calculate its area; neither can the principles, upon which the operations are founded, be clearly explained to young pupils, or rather the clearest explanation will not enable them to understand the reason of the operations.

They must, then, never be required to solve such questions, until they have studied geometry, or else they must have a rule. Those teachers who think that the pupil should not take *anything* for granted, should never use a word the meaning of which he does not thoroughly understand and fully comprehend—(and hence such words as God, Infinite, Eternity, &c. should never be crowded upon the mind of the learner;)—that the pupil should not learn the facts of *any science* until he has learned the principles—should *never* soar by faith to regions of inconceivable glory, but *ever* plod on by the dim light of reason: Such teachers, I say, would not burden the pupil's mind with any *rule*. But I am of a different opinion. I think it is profitable that the pupil should take some things for granted: the reasons for this opinion will be obvious, I think, to most teachers, and hence I need not mention them.

Suppose, therefore, the pupil has the following rules for calculating the areas of circles: 1st, Multiply the circumference by half the radius; or, 2nd, Multiply the square of the diameter by .7854. Now, the last rule may be clearly explained; for .7854, is the area of a circle whose diameter is one; $\frac{1}{4}$x3.1416 =.7864, and the area of a square whose side is one, is 1; consequently the area of any square multiplied by .7854, will give the area of a circle whose side is equal to the side of the square; but the area of a square is obtained by squaring one side; hence squaring the diameter and multiplying it by .7854, gives the area of the circle. The second rule depends upon the first, for by the first we obtain the

decimal .7854. Here two things are assumed, first that the ratio of the diameter to the circumference is as 1. to 3.1416. nearly; 2d, that the circumference multiplied by ¼ of the diameter, or ½ of the radius, will give the area of a circle; and hence, as these facts cannot be readily explained so as to be comprehended by young pupils, a rule is necessary; else the pupil must not be required to perform any such examples, until he has studied geometry, and I think but few teachers are inclined to the latter opinion. J. P. SHERMAN.

Pottsville, Oct. 13, 1854.

NOTES OF SCHOOLS IN LANCASTER COUNTY.

MR. EDITOR:—It may seem strange to you, that in my notes of Schools, I have entirely neglected my own District. The truth is, we have considered ourselves somewhat behind other townships in the cause of education, and felt ashamed to show ourselves to the public. But upon reflection, and comparing ourselves with what we were, we will probably show as much improvement as any of our contemporaries.

These notes then, are more for the purpose of comparing our township *now*, with our township *past;* than to show our actual position:—to show her progress rather than her *state*. If we do not stand the highest in the temple of education, we are not the least in progress. The true character of a people, is marked by their progress, rather than their actual condition. Comparing then, our present position, with what it was eight years ago, we have cause for congratulation.

These remarks were partly drawn out by a hint of our worthy County Superintendent to our School board, that there was something wanting. It is true, much is wanting. But what has been our progress?

Eight years ago, the School at Lampeter Square (the leading school of the District) was taught in a vacated smithy, for eighteen dollars per month: now the same school is taught in a large and convenient brick school house. Mr. D. M. Barr, the present teacher, a young man, appears to be endeavoring to carry out the principles of reform, advocated by modern educationalists. This school house, in which maps and black boards were things unknown, is now lined with outline maps and black-boards, and has a looking-glass, comb and hair-brush, for the pupils, &c., &c.

Eight years ago, in one of our schools a blackboard was forbidden to be used, and the teacher who introduced it dismissed because he persisted in using it, and in teaching that the world is a globe; and a teacher employed in his stead was pledged to not use a blackboard, or teach the figure and motion of the earth. In this school the same change is effected as in the former.

I might mention the other five schools of the District, but these two may suffice.

The township then paid eighteen dollars per month, and did not examine teachers, who were not required to be moral, or even sober men. They might be as immoral and intemperate as they pleased, provided that they were not drunk in the school room; which provision was not however always observed. It is not necessary to say that such *teachers* now dare not show their faces to the school board to apply for a school. Present salary—twenty dollars a month.

Thus, you perceive that although behind some of our contemporaries in our actual condition, we are not perhaps so far behind in progress. What were we eight years ago? What are we now? These are questions which, if answered by school districts, now far in advance of ours, may place us in the other end of the scale. And in our humble opinion, the public school teachers of West Lampeter District, will compare favorably, with the teachers of many other school districts in the county.

I will conclude these hasty remarks with a few notes of ideas derived from conversations with my fellow teachers, concerning their experience in teaching.

It is now generally admitted that the "waking up of mind"—"the development of the faculties," the making of the child a thinking being, is the correct mode of teaching and preferable to hurrying the pupil through a certain quantity of abstract knowledge in a certain time. Yet as practical teachers, we are forced to teach to please the parents of the children. Who has not heard the complaint, "My child has gone so long, and he don't know his letters."

To the practical teacher, in this practical age, a mode of teaching the child *to spell and read* as soon as possible, seems to be the desideratum. "It is the dictate of common sense," says Mr. Page, "to take human nature as it is, and is likely to be for some time to come. Human nature is far from being perfect; and I am sorry to say that the parents of our children, often exhibit it in no flattering light."

We must satisfy the parents. We know what our patrons expect of us; and we know that the teacher who can teach a child to spell and read in the shortest time, will receive the best support. I have now in my mind's eye, a teacher of the first class, who, to use a common phrase of his patrons, "*has the smartest set of scholars, but he can't make anything of them.*" They are "*smart.*" Ay, so they are: but who developed their faculties? Who made them "*smart?*"

Much, we believe, may be effected by a "good correspondence" between teachers and patrons. A teacher informed me that the father of one of his pupils, whom he lately visited, complained that he did not know his letters. The teacher called the

little boy to his side, and showed the father that he knew every letter. "Oh," said the father, "I tried him on the large capitals." "And," asked the teacher, "what letters is he to use in the spelling of words?" The parent was convinced. The teacher was right, that it would only confuse the mind of the child, and consume unnecessary time, to teach him two alphabets. As to the capitals, they would be learned as he advanced in spelling.

Another teacher who had a boy somewhat *dull* in learning, commenced the teaching of the letters in connexion with the spelling of words. The boy had learned to spell "*potato*," together with a knowledge of the letters composing the word, when a message from the parent came to the teacher, commanding him to put the boy in the "alphabet page." The teacher visited the parent, and asked him good humoredly to show him the *alphabet page*, and to tell wherein the letters differed from the *potato* page. The father was convinced, and the teacher was permitted to teach the boy in his own way. This seems to be the only way for teachers to manage refractory and ignorant parents, who presume to instruct a teacher how to teach.

Fellow teachers, we who attend the "mutual improvement" meetings of teachers, feel ourselves benefitted thereby. Why then not mind meet mind for *mutual improvement*, through the columns of our journal, which are always open to receive you?

E. LAMBORN.

West Lampeter, Lancaster co., Oct. 1854.

TRUE METHOD OF TEACHING GEOGRAPHY. NO. 4

In the fifth stage of our method of teaching Geography, the pupil's attention is directed to foreign countries, which are now to be more *thoroughly* studied. In the second stage, mere descriptions and pictures of *objects* existing in foreign lands were the means by which to inform the young learner about those countries. Now the investigation must be more thorough and minute; but all things should nevertheless be presented in contrast with what is to be found at home. The countries of the western continent come first in order, then those of the eastern. Here we have a two-fold task to perform; to show, on the one hand, that human beings, like ourselves, are to be found in every part of the world, and that God has made provision for all created beings every where, according to their respective wants; and, on the other hand, that things animate and inanimate, differ, in many respects, very widely in other lands from those of our own. It is therefore a matter of great importance to give much attention to comparing different countries with each other. Geographical knowledge will thus be made more practical, more willingly learned, and be more permanently imprinted on the mind.

In making comparisons between different countries, care should be taken, lest prejudices and generally prevalent opinions in regard to particular nations create wrong impressions concerning such people. Some people are said to be effeminate and others to be revengeful. Things of this kind, if not carefully discussed, produce wrong ideas. But things which are real and which may be supported by facts, ought not to be omitted. It is particularly interesting to make a comparison between objects of nature abroad, and similar things existing at home. Scarcely any thing else excites the mind and enlivens the fancy and imagination of the young learner so much as such comparisons; particularly when the contrast brought forth thereby is striking.

But it will be impracticable to describe with equal minuteness, *every* foreign country. Some particular countries, which, on account of a general similarity to others, may be regarded as representatives of them, should therefore be selected and thoroughly described. For example, the climate of Italy is like that of Greece and Spain. One of these may therefore be made the representative of the other two in regard to climate. Palestine, on account of its historical importance may be regarded as a representative of the warm regions out side the tropical regions; Switzerland as one of the mountainous countries; Holland and England as representatives of commercial countries. The greater the similarity between countries and places, the more unhesitatingly should we class them into one group, and so describe them.—For example, England possesses a large number of manufacturing cities. To describe all these separately would be futile and tedious. Rather describe one in glowing colors, and then merely point out the locality of the rest on the map.

Great caution should be used in regard to statistics. These are often exceedingly incorrect. But they are very necessary to enable a person to arrive at a correct knowledge of any country.

We should also be very careful in the pronunciation of foreign names. It must be admitted, however, that we cannot imitate correctly those foreign sounds that are represented by insecure characters, and entirely unknown to us except by such characters. And in many cases it is in accordance with perfect propriety to anglicise foreign names in pronunciation. Paris, Mailand, Rome, &c., are examples of this kind.

Should the course of instruction, for want of time, be very much shortened, and still somewhat combined with Natural History, it will be best to select those foreign countries for description, from which we obtain ordinary products, as coffee, indigo, tea, furs, silk, &c. Such a combination of Natural History with geographical subjects may do much to-

wards rendering fixed in the mind what is presented to it.

The sixth and last stage of our method relates to mathematical Geography. It must, of course, be taken for granted, that many things, having reference to this part of Geography, come occasionally under consideration in the previous parts of this course.—Nevertheless a complete and thorough knowledge of mathematical Geography cannot be acquired by the pupil until his mind has been somewhat matured.—In the higher institutions, where this part of Geography is most thoroughly handled, it is often made a part of Physics, and the teacher, in imparting instructions thereon, avails himself of the pupil's previously acquired knowledge of Mathematics, as a means for insuring his success in rendering his subject intelligible.

This part of Geography is a subject really difficult to be taught; and many teachers fail in the attempt to teach it, partly, because they do not undersand it themselves, partly, because, though they may understand it, they do not teach it according to the principles of pedagogical science, and partly also because they possess not the apparatus necessary for making illustrations.

A great error is often committed in regard to the proper time for advancing proofs to establish the fact of the globular form of the Earth. Children, who are scarcely able to comprehend the mere *fact* of the sphericity, that is, to understand what a sphere is, ought not to be taxed with the additional burden of endeavoring to comprehend the *proofs* of this fact. These proofs, comprehensible by the matured mind only, establishing each but a part of what is necessary for the support of the entire fact, and unless taken together, not sufficient to insure conviction, must be deferred to another time. It is just as possible not only to convince children, but even men that the Earth is *not* a spere as it is to *prove* its sphericity. The teacher, in every thing that relates to mathematical Geography, should endeavor, first, to make his pupil understand what things are, and *then* why they are so. The latter belongs to Astronomy. First that which is apparent, then that which is real.—Folly it would be, to spend time in endeavoring to convince a mere *child* that the Sun does *not* move around the Earth, but the latter around the former.

The globe is a necessary apparatus toa teacher of Geography. It is difficult to accomplish any thing in the mathematical part of this subject without it. This instrument should be continually before the eyes of the pupils. A tellurium and lunarium are also very useful for making illustrations. The cost of these articles keeps them from nearly all country schools. But the teacher can make these instruments himself, though rude they be. A ball, lamp and string may be used to illustrate the phenomena of day and night, of full moon and new moon, and the motions of the planets around their central body of attraction.

At this point of the course of instruction, a very excellent means is furnished for completing what was previously commenced in regard to physical Geography, which is very intimately connected with mathematical Geography. For example, it is impossible to explain the equatorial line, without speaking also of the fact that under this line a larger number of solar rays are concentrated upon a square foot, than on an equal space in parts either north or south of the equator, and that the equatorial regions are the hottest parts of the Earth. The pupil will now be highly interested in being informed of the means which divine Providence has chosen through which to moderate and render endurable the tropical heat. He should now also be told of the equal lengths of day and night, of the inclination of the ecliptic and of the preponderance of water over land in this zone. All these things, if properly taught, will also elevate the mind from things created up to Him who is the Creator of all wonders in nature.

Whether I have succeeded in these articles in making myself useful to any fellow teachers, can, of course, not be known to me; but if any have been made to feel the necessity of *some* system, and to see the folly of presenting things in such confusion and disorder, as is done in all our geographical text books, without one single exception, my labors have received a fair pay. Torture to the learner, confusion in his mind, early forgetfulness of what was learned, and a one-sided conception of things in general, are the consequences of the reversion, or rather transgression, of the psychological laws of our nature.

Pottsville, Aug. 21, 1854. E. Schneider.

STATE OF SOCIETY.

The happiness of civilized life results in a great measure, remotely, or immediately, from social enjoyments. The mind, formed with faculties capable of indefinite expansion, and endowed with that combination of amiabilities which predisposes it to friendship, finds its greatest stimulus to action in the example or the precepts of its associates. Society sheds over the path of life a radiance, that, like the early beams of the morning, tinges surrounding objects with lively hues, and instils into the susceptible heart emotions of pure and refined enjoyment. Occasional seasons of enlivenment quicken our relish for pleasure, and afford us an opportunity of becoming more intimately acquainted with ourselves, and maturing our minds by reflection. Like the alternate lights and shades upon a landscape, each adds new lustre to the other, and by contrast, no less than

by their own inherent beauties, combine to diversify agreeably the path of life, and scatter gems around.

Richly endowed as we are with a capacity for social communion, distinguished by nature with that ennobling attribute, *mind*, in its highest terrestrial perfection, and placed in the midst of society, to receive and confer mutual obligations, how great a responsibility rests upon us!—how much is entrusted to our care, and depends upon our properly employing the faculties assigned us. Did we properly consider the influence, both social and moral, which each individual exerts upon society,—could we view the full effect of our example and authority as parents and teachers—of our precepts and counsels as brothers and sisters, as friends and companions, on those with whom we are connected;—could we view our *individual influence*, insulated from the mass of mankind, we should find that we contribute more largely than we are aware to the present derangements of society. An unguarded act or expression in the presence of youth, by those to whom they are looking for example,—a licentious disposition, playfully, and often thoughtlessly indulged by those whose station or attainments entitle them to wield the social sceptre, has often been productive of consequences which their authors would blush to own. These unhappy esults are not confined to the small circle first tainted with the poison, but the contagion often spreads through the ranks of society, like the concentric circles upon a tranquil lake, when its placid bosom, upon which was mirrored in characteristic perfection the glories of the "upper deep," has been ruffled by a grosser body, and its celestial images have disappeared and left only broken and shattered fragments of the "glory that has departed." Teacher! think of this, and beware! When we bring our conduct to this, which is the only proper tribunal on this side immortality, we shall have some idea of the responsibitity resting upon us.

Every rightly concerned mind will be anxious to do something to elevate the standard of society, which has truly fallen to a low ebb in a religious and moral view. We see many instances of this in the low and debased classes about our villages and large towns, as well as in different parts of the country, who are given to intoxication and idleness, spending their time in rude sports or idle conversation, a curse to themselves, and a reproach to society. Where shall we find a remedy for these great and crying evils? My answer to this important query is, "make the domestic circle and the school room attractive." Disorder in the one and neglect of the other, are the prime causes of these grievances. A large class of our younger citizens find but little enjoyment at home, to induce them to spend *there* their leisure hours,—no refinement of manners, no endearing attentions, to chase away the gloom that must settle down upon a mind wandering in the mists of ignorance and neglect. In the school room, instead of the attractions that should adorn the scene of our youthful sports and youthful toils,—instead of those smiles of love and sympathy that should enliven the countenance of the teacher, and shed a ray of joyful light upon the school day labors of our youth;—we too often find the former devoid of ornament and forbidding in their appearance, with no tasteful or convenient arrangements to allure the spirits of youth; and the latter are too often darkened with a frown, and made the "herald of disastrous times to childhood's buoyancy and youthful sports." This class seldom improve themselves by elevating conversation;—no books adorn their humble dwellings to employ their leisure hours, to improve the mind of parents or of children, and fit them for their proper sphere; their homes are enlightened by no religious feeling, but passions often rage without control, encouraged, rather than restrained, and ignorance and impiety cast their baneful gloom around.

Every person of common abilities has a mind capable of great improvement—of receiving and relishing enjoyments of a refined and ennobling nature; capable of becoming a useful, if not a prominent member of society. Every one has a soul to be saved or lost, and how much does this awful consequence depend upon surrounding circumstances. It is too much the case that those who are capable of exerting a beneficial influence upon the lower classes, shrink from the connexion and shun all intercourse with them. Thus left to themselves, with but little inducement to improvement, or at least little that can reach their dormant sensibilities, their life flows on in the same dull and turbid stream, without enjoyment or usefulness. What can be expected but that society will still be polluted by their baneful influence, and the stream of life thus tainted at the fountain head, will continue to flow most likely to the gates of death unpurified and unclean? But let the means of instruction be placed within their reach, let them be shown the beauty and excellence of learning, and the divinity of religion,—let them be kindly invited to come forward on the platform of respectability, and assert their right to the dignity of human nature—and the reformation that will result will mark a new era in the history of man. From the dark fens of pollution,—from the deep and gloomy vale of ignorance,—from the clouded realms of superstition, infested with serpents and haunted with demons,—will come forth a band of patriots and philanthropists, of Christians and philosophers, crowned with moral worth and in-

tellectual excellence, rejoicing in their new existence, and glorying in the dawn of a fairer and a brighter day.

C. WILLIAMS.

Harrisville, O., October, 1854.

SCHOOL MATTERS IN ILLINOIS.

[We felt some hesitation in publishing Mr. Hoskinson's first letter from Illinois, not, it is true, because it would get *him* into the scrape, in the midst of which he is so cleverly landed, but because we feared it would attract some of our good Pennsylvania teachers "out yonder." But then again, we concluded that we did not possess the right, by holding the truth from them, to keep them at home laboring for inadequate pay. So we published it; and being now also "in for it," we must publish his second letter. However, we are happy to say that, since April, the teacher's prospects have brightened wonderfully in the Keystone State; and his compensation has also considerably increased, and promises very soon to be not altogether out of proportion to his labors and his standing in society.

On the whole, however, our advice to all who value it, is, to stay at home and still labor for our good commonwealth; "for there's a better day a coming."—ED.]

MR. BURROWES:—My letter published in the April No. of the Penna. School Journal, has brought me into a scrape; and I now desire your assistance to get me out of it.

Quite a large number of private letters have been received from Pennsylvania, mostly asking the same questions; the most prominent of which are here given, with their answers, according to the best of my ability.

What sort of climate have you? An excellent one, very pleasant and regular.

Have you much Fever and Ague? Very little, and what we have is quite under the control of our Physicians. I should call this country very healthy, for since I came out I have seen, or heard of, but very little sickness of any kind.

What is the state of society?

About as good as in any of the older States. The majority of our citizens are Moral, Intelligent, Industrious, and Enterprising; and, best of all, many of them thorough-going educationists. Let no one come here expecting to teach "Heathens," as eastern people are too apt to style them.

What chance for men of limited means to make a living?

None better that I know of than are here presented. Any one who is willing to *work*, need not have the slightest fear on that score. Labor of all kinds is in good demand. The most common laborer gets from $1 to $1,50 per day, and mechanics from $2 to $3 per day. Provisions plenty and cheap: while the best of land can be bought at from $5 to $20 per acre.

What kind of schools have you? How long are they kept open? At what time in the year do they commence? What text books are used? And how are the Teachers paid?

Many of our schools are very good, but we have *all* sorts, from the splendid well conducted College, down to the miserable *Hut*, scarcely fit for a *Hog pen*, with Teachers of corresponding grades.

Many of our schools are kept open all the year, especially in towns and villages.

They commence April 1st, and October 1st—two sessions of six months each—twenty days counted to a month in teaching.

The same text books are in use here that are common in the East.

Teachers receive a certain amount according to each pupil's actual attendance per quarter—mostly $2,50. Part of this is paid out of the public funds, and the balance by the subscriber. Our schools are improving to some extent.

What will be the probable cost of travel? From Pittsburg, via Chicago, to this county, will cost $25; greater or less distances in proportion. To any who may desire to move out, I would say, bring as little heavy furniture as possible, and what you do bring, have well packed in good *hogsheads*. This is much the best way to carry goods. Don't risk *sending* your things, but *bring* them with you.

I have now answered the substance of over fifty letters. If anything further is needed, please come and see.

R. M. HOSKINSON.

Littleton, Schuyler co., Ill., October, 1854.

HARFORD UNIVERSITY, SSUQUEHANNA COUNTY.

MR. BURROWES:—As communications from this section of the State seldom appear in your valuable journal, I would beg permission to say a few words in regard to things and persons that *have been* and *are* in existence in this, the heart of the old "Tenth Legion," of the Iron State. I desire to speak more particularly of our schools, and of what is being done for the advancement of education in general.

First, then of our schools;—the oldest and most influential of these is *Harford University*, (formerly Franklin Academy,) which is situated in Harford township, in this county. It is venerable for its age, and valuable for its efficiency and high standing as an institution of learning. It had its origin nearly twenty-five years ago, in a select school conducted by the brother of the present able principal. My present purpose seems hardly to require the details of its early history, and yet many of them are not without interest. But I can recite a few of

its past honors only. In looking over the catalogue I find many on the list of students who have since figured conspicuously in the great drama of life, doing honor to themselves and their faithful *Alma Mater*. Among them we find such names as these: Hon. C. A. Grow. M. C., Hon. F. B. Streeter, Solicitor of the Treasury at Washington, Hon. E. B. Chase, late Speaker of the Pennsylvania House of Representatives, Judge Kidder, of Wilkesbarre, Hon. G. R. Buckalew, of Bloomsburg, State Senator and Special Envoy to South America, T. Hempstead, Esq., the Essayist and Poet, and many others, who as they recall the classic hours of their youth, remember Harford University with the most endearing affection. So you see if Yale and Princeton can boast of their Statemen graduates, *Harford University* can do no less.

But I must leave her to the enjoyment of her past honors, and speak of her present capacities in answer to your solicitation for information in relation to schools for the education of teachers.

I regard this as *one of the first schools in the State for the education of teachers of our common schools.* Rev. Lyman Richardson and Prof. Willard Richardson, compose the faculty at present—the former being Principal and instructor in Mathematics and the Natural Sciences, and the latter (who is our worthy County Superintendent, whose acquaintance you no doubt made at the Harrisburg Convention) is Prof. of Belles Lettres, Polite Literature, &c.—Teachers of vocal and instrumental music, are also employed; altogether forming a valuable and efficient corps to aid the instruction of youth.

One of the most gratifying features in its location, is that it is situated in a most beautiful rural district, far from the din and turmoil of village life, but still very easy of accees, being only three miles from the Del. Lackawanna and Western R. R., and only one mile from Harford village, to which there is daily access by stages running from the rail road.

Expenses are probably one third less than at any other institution in the State. I have known students to attend a term of fourteen weeks and their tuition, room-rent and board entirely covered by $15,00. Facilities are afforded to those who desire to board, themselves and work furnished for those who wish to take their exercise in laboring and earning something at the same time. There have been instances where the Faculty have been indebted to the student at the and of the term. One case I recollect in particular: it was a young man nearly ready to enter the Sophomore class in College, and who stood first in his class—talented and ambitious—but not *ashamed of physical labor.*

Almost every facility is here offered the young man or woman who desires an education. Ample libraries, and well-sustained Lyceums, both public and private; also Philosophical and Chemical apparatus, together with many lectures by the faculty during each term. And especially does the student, intending to become a teacher, receive particular attention, as the faculty are fully aware of the fact that they produce teachers sufficient to supply two counties as large as Susquehanna.

Any one desiring to become a thorough educator of his race, can hardly find a more suitable school in the states; and those desiring an education for themselves only can be prepared for the Junior class in College and at one quarter the expense of College attendance. I cannot recommend this institution to those who attend school for ease—for luxury—and even profligacy; for the faculty have labored arduously to purge Harford University of all such matter, and make it worthy of its fame, which was not secured by wealth or high-born patronage, but by integrity, excellence and virtue. B. F. T.

Brooklyn, Susquehanna Co., 1854.

STIMULATE THE INACTIVE.

It has been said, with much truth, that "as is the teacher, so is the pupil." Of what vast importance, then, that the teacher be one whose habits and example will produce a good impression upon the minds under his charge! It is a fact, worthy of our most careful consideration, that there has scarcely ever been a great or truly distinguished man, who did not enjoy the training of a skilful teacher, or the care of a judicious and learned mother. This shows, that, however great may be the natural talents and capacity of a child, he needs the guidance of an instructor.

In view of this fact, which meets us at every glance into the lives of renowned individuals, who could look upon the teachers' calling as one not exceedingly honorable, and not equally responsible—fraught as it is with such untold consequences? And who would believe, that any one would be "ashamed to own himself" a teacher, or to so record it in the life of the greatest man? Yet it is even so. The biographer of Milton brings forward a labored argument to prove that this great poet was never employed as a teacher. What consummate folly! Is the immortal mind a less enduring tablet than parchment? Let us then lay aside all erroneous ideas in regard to this business, and, looking upon it as a high and noble calling, strive to qualify ourselves accordingly.

If we do this, we shall not be indifferent to the progess of any pupil: and especially shall we labor to "*stimulate the inactive.*" Dull scholars are to be found in almost every school;—the teacher should expect it, and he should not let his patience become exhausted in his endeavors to assist them. They are the ones who most need contact with the active

mind of a devoted instructor, to quicken their intellect and whet up their understanding. Let the teacher see to it, that proper assistance is given, and that he does not still more stupify and discourage by careless and cutting remarks. We ought always to remember, that it is quite hard enough for pupils to know their dullness without being ridiculed for what they cannot entirely remove.

Numerous examples might be cited, to show that some of the dullest boys have made the most distinguished men. But let one suffice. The life of Isaac Barrow furnishes a forcible instance. He was very dull in youth; and his father, who certainly ought to have exercised better feelings, said he "hoped, if it was the will of God that either of his sons should die young, that it might be Isaac." Yet, strange to relate, out of a large family of boys, Isaac was the only one that distinguished himself; and the many books he wrote show the manner of his celebrity, and the vast benefit he conferred upon mankind.

The teacher should not allow any method to remain untried, but ever labor, in school and out, to rouse up the dull scholars; and great will be his reward, when success crowns his labors. Though all may fail for a time; though it may seem like seed sown by the way-side, yet in due time it will spring up. Let us then neglect not the stupid.—We know not the evil they may do if uneducated, nor the good they may accomplish if the sparks once be made to fly. They need sympathy, and with this and the encouraging smiles of the teacher, they may be started upon an important and useful career.

JAS. GUILFORD.

Elizabeth, Allegheny Co., Oct. 1854.

Educational Societies.

Westmoreland Co. Teachers' Association.

Will hold its next annual meeting at *Greensburg*, on Friday, November 24th, commencing at 11 o'clock, A. M., and continue until Saturday. A full attendance is requested, as business of importance will be laid before the meeting.

By Order of G. W. FRICK, *Cor. Secretary.*

Tinker Run, P. O., Nov. 1, 1854.

Lancaster Co. Teacher's Institutes.

The Teachers of the borough of Adamstown, and the townships of Upper Leacock, Earl, East and West Earl, Cærnarvon, Brecknock, East and West Cocalico, Elizabeth, Clay, Ephrata and Warwick, will form a Teacher's Institute in HINKLETOWN, commencing on Thursday the 16th day of November.

The Teachers of the borough of Strasburg and the townships of Strasburg, Leacock, Salisbury, Paradise, Bart, Sadsbury, Colerain, Little Britain, Fulton, Drumore, Martic, Providence, Conestoga, Pequea and East and West Lampeter, will form a Teacher's Institute in the borough of STRASBURG, commencing on Thursday the 23d day of November.

The Teachers of the city of Lancaster, and the boroughs of Columbia, Marietta, Elizabethtown, and Mount Joy, and the townships of Lancaster, Manor, Manheim, East and West Hempfield, Penn, Rapho, Mount Joy, Conoy, East and West Donegal, will form a Teacher's Institute in the borough of MOUNT JOY, commencing on Thursday the 30th day of November.

All these Institutes will commence at 10 o'clock, A. M., on the days specified and continue in session three days.—School Directors and all friends of education are cordially invited.

CHARACTER OF THE EXERCISES.

1st. In Lectures on the six branches usually taught in our Common Schools, by experienced teachers of our county.

2d. In general discussions on various educational topics.

3d. In Popular Lectures on each evening.

4th. In Lectures on the Art of Teaching by the County Superintendent.

TEACHERS TURN OUT! No teacher who has the good of his Profession at heart will be absent. Many Boards have given the teachers in their employ the privilege of attending without any deduction of time or pay, and it is hoped *all* will do so. Local committees and the people of Hinkletown, Strasburg and Mount Joy, will make every effort to furnish accommodations to all who come.

J. P. WICKERSHAM,

Marietta, Oct. 25. *Co. Superintendent.*

INTERESTING ENTERTAINMENT.

On Friday evening last, the citizens of our Borough, (Norristown,) were treated to a somewhat novel entertainment in the form of a Concert given ot the Odd Fellows' Hall, by some thirty pupils of the Pennsylvania Institute for the Blind. We dropped in in the early part of the evening with the view of staying but a few minutes, but were so agreeably surprised with the character of the proceedings, that we found it impossible to leave until its close. It was surprising, indeed, to witness to what an extent those deprived of the organ of sight, are capable of being taught. Without exaggeration, we think it may safely be set down as one of the very best musical entertainments that was ever given in this place. The pieces played were of the highest order of compositions—three of them being among the very best productions of that truly celebrated composer, JULIEN, and were performed with a degree of spirit and accuracy truly astonishing. The singing by the ladies was also very beautiful, and exhibited a remarkable degree of cultivation of voice, &c.

One of the most interesting features of the entertainment, was the explanation, by the Principal of the Institution, Mr. WILLIAM CHAPIN, of the mode of imparting instruction to the pupils. The style of printing is in raised letters, somewhat similar to the seals used in our public offices, each letter making a separate indentation upon the surface of the paper. The pupil passes his fingers over these letters, and after a little practice, is enabled, by the sense of *touch*, to distinguish the character of each one, and thus is enabled to read. The manner of reading was demonstrated to the audience by one of the pupils, a Miss M'CULLOUGH. She read from a book printed in the above manner, a short fable, entitled, "The Ant and the Dove." Her style of reading was plain and distinct, and almost as rapid as that of an ordinary reader. The Principal, in the course of his remarks, stated that children would learn to read much more readily than grown persons, for the sim-

ple reason that the sense of touch in their fingers had never been blunted by labor, as was frequently the case with the latter, and which required considerable time to overcome.

The mode of cyphering was also demonstrated by one of the pupils, a Miss WILLIS, a native of this county. It is somewhat novel, and we will therefore briefly explain how it is done. A small board perforated with a number of rows of small holes, is used for a slate. By the side of the pupil is a small box, divided into different apartments, in which are deposited the different figures. The figures are taken from these boxes as they are required, by the pupil, and stuck endwise, with face up, into the holes of the board, or slate—thus arranging a sum with types in the same manner as others would do with a pencil.

In thus distinguishing and arranging the different figures, the pupil is dependent entirely upon the sense of touch, and mental calculation. Notwithstanding the apparent insurmountable difficulties which would beset one deprived of sight, in the study of this particular branch, we were informed by the Principal that many of their pupils had not only passed through arithmetic, but also through algebra, mensuration, and the other higher branches of mathematics. The example by Miss WILLS was in multiplying a number of figures by 5, which she did correctly, and to the entire satisfaction of the audience in point of time.

A very interesting and satisfactory example on the globe, was given by a little Chinese girl, who has been a pupil in the institution for some three years. She manifested a very general knowledge of the geography of the world, and answered all questions put to her by the Principal, promptly and without hesitation. When asked to point out a particular locality on the globe, she did so with exceeding correctness and despatch.

Mr. CHAPIN, at the close of his remarks, exhibited a number of useful and fancy articles manufactured by the pupils—among which was some beautiful fancy bead work and knitting by the females, and some brushes and other articles by the males. In connection with this, Mr. C. also stated that all of the horse-brushes used by the United States Government, for the last few years, amounting in all to several thousand, had been manufactured by the pupils of, and furnished by the Pennsylvania Institution. This Institution is supported by annual appropriations from Pennsylvania, Maryland, New Jersey, and Delaware. The annual appropriation from this State is some $12,000; Maryland $1500, and the others a certain amount for each pupil sent to the institution. Mr. CHAPIN, the Principal of the Institution, is a native of Gwynedd township, in this county.

The audience on Friday night, we are pleased to say, was very large. Should the Teachers and Pupils of the Institution, conclude, at any future period, to pay another visit to our Borough, we bespeak for them in advance equally as warm and generous a reception by our citizens.—*Montgomery Watchman.*

EXAMINATION AND MEETING AT FLORENCE, WASHINGTON CO.

This educational meeting was one of the most interesting, that has been held in the county. Twenty-one teachers were examined and all received certificates. Tee exercises on Tuesday commenced with the examination of all the candidates present. In the evening there was a meeting held and the audience was addressed by the county Superintendent and A. M. Gow. On Wednesday a class was formed of all the teachers in attendance, and they were instructed for one hour in the practice of teaching Arithmetic by Mr. A. M. Gow, and by ourselves (D. P. Lowary,) on Geography. The other teachers who had come in were then examined. An Institute was formed the proceedings of which we give below. The exercises were closed by a few remarks based upon the report of the committee on the "Past, the Present and the Future of the Teacher," which was read at the Pottsville meeting. Good feeling pervaded all in attendance, the teachers are wide awake. Many members of the several Boards of Directors were in attendance, and altogether the meeting was pleasant and profitable, and an impetus was given to the cause of education, which we hope will long tell for good.

FLORENCE, Sept. 13, 1854.

After the examination of teachers by the county Superintendent, on the 13th inst., was ended, the teachers present agreed to form a teachers' institute, for the improvement of its members in the art of teaching and dissemenation of educational knowledge among the people.

On motion, the house was called to order by calling Mr. A. K. Crawford to the chair, and S. G. M'Farland, Secretary.

On motion, it was agreed that a committee be appointed to draft a form of constitution; the President appointed the following persons: Jas. Campbell, A. M. Gow and ——— Bigham.

On motion, Wm. Glenn was called upon to make some remarks with regard to the association, while the committee were in session upon the constitution. After few very appropriate remarks were made by Mr. G. the committee made the following report:

ART. 1.—*Sec.* 1. That this association be called the North West Teacher's Institute, which has for its object the improvement in the art of teaching, and the dissemination of educational information among the people.

ART. 2. That the officers consist of President, and Secretary, to serve for the period of three months, who shall perform the usual duties allotted to such officers, except the Secretary who shall act as Treasurer.

Art. 3. That this Institute meet once a month wherever the majority deem it most convenient.

Art. 4. That the President appoint 3 instructors from the members, who will make preparations in such a way that they may teach the Institute, in the branches to which they may be appointed.

Art. 5. That at least three studies be discussed at each meeting.

Art. 6. That any friend of education may become a member and attend our meetings.

Art. 7. That each member contribute his share of the expenses for light, fuel, &c.

Art. 9. That a majority of two-thirds of those present, may alter or amend the constitution, at any regular meeting.

On motion, the blank article 4th of the constitution was filled by inserting three.

On motion, the constitution was adopted, and the house proceeded to elect officers; the following were chosen: President, Jas. Campbell; Vice President, S. G. M'Farland; Secretary, Wm. Van Enman. The President appointed the following gentlemen to lecture at the next meeting:

On Arithmetic, B. M'Cracken; Grammar, S. G. M'Farland; Geography, Wm. Van Enman.

On motion, adjourned to meet at Burgettstown, on the 14th of October next, at 1 o'clock, P. M.

JAS. CAMPBELL, President.

Wm. W. Van Enman, Secretary.

[*Weekly Review.*

CUMBERLAND COUNTY EDUCATION CONVENTION.

Agreeably to notice of the Superintendent of Common Schools of Cumberland co., the Directors of Common Schools and Teachers generally, assembled in Educational Hall, Carlisle, on Saturday, the 2d of September, 1854, for the purpose of holding a School-Teacher's Convention for devising more favorable means for the promotion of education generally in the Common Schools of Cumberland co.

On motion, Ex-Governor Joseph Ritner was appointed President, and A. Lamberton, Esq., and Maj. J. P. Rhoads, Secretaries.

On motion, Mr. Dieffenbach, Deputy Superintendent of Common Schools of Pa., was solicited to take a seat with the President of the meeting, who complied with the same.

On motion, a committee of five were appointed to prepare items of business for the consideration of the meeting. During the absence of the committee, Mr. Shelly, Superintendent of Common Schools of Cumberland county, was called upon to address the meeting, who responded to the call, and in an able and eloquent manner addressed the assemblage: after which the committee reported the following resolutions, which were adopted:

Resolved, That the Boards of School Directors be requested to require that the schools be opened each morning, by the reading of a portion of the Scriptures, without comment, by the teacher alone, or by the teacher and scholars in concert. Singing and prayer at the option of the teacher.

Resolved, That each teacher be requested to have stated times for studies and recitations, so that each pupil may receive his or her due share of the teacher's attention.

Resolved, That the government in school should be mild, but firm; and that the rod should never be used, except when all other reasonable modes of punishment shall fail.

Resolved, That each teacher be requested to keep a monitor's book, in which he shall record the late attendance, bad conduct and absence of scholars, and such other matters relating to the school as he may deem of sufficient importance.

Resolved, That the teachers in each borough and township be requested to organize Teachers' Institutes as soon as practicable.

Resolved, That Daniel Shelly, Peter S. Artz, Joseph M. Means, J. P. Rhoads, C. V. Kelly, T. W. Maurice, Davidson Eckels, Wm. R. Gorgas, T. B. Bryson, John Moore, John Hinkle, E. Cornman, Moses Morrett, Abram Bosler, and F. Eckels, be appointed a committee to make arrangements for the permanent organization of a county Institute, and that they shall have full power to adopt a constitution and by-laws for the regulation of said Institute.

Resolved, That we recommend to each teacher the importance of subscribing for the "Pennsylvania School Journal," edited by Thomas H. Burrowes.

Resolved, That in order to be a successful teacher, each member of the profession should procure suitable works on teaching.

Resolved, That we recommend to the citizens of each School-district, the propriety of raising by subscription, a sum sufficient to purchase a set of outline maps.

Resolved. That the School Directors of the different districts be requested to consider the propriety of paying the teachers a liberal salary.

Resolved, That the thanks of this convention be tendered to Mr. Diffenbach, Deputy Superintendent of Common Schools, for his attendance at our convention.

Resolved, That the thanks of this convention be tendered to the Board of School Directors of Carlisle, for the use of Education Hall.

Resolved, That the proceeding of this convention be published in all the papers of the county and in the "Penna. School Journal."

Resolved, That the thanks of this convention be tendered to the officers for the faithful discharge of their duties.

CONEMAUGH TEACHERS' INSTITUTE.

Met at Saltsburg, Indiana county, Monday, Oct. 2, 1854, at 2 o'clock, P. M.

Officers.

J. A. Brown, A. M., Principal.

W. H. Townsend,
R. E. Richards, } Asst. Prin.
J. C. Thom,

Sam'l Kennedy, Esq., Secretary.

J. A. Thompson, Treasurer.

Instructors.

J. D. Cox, A. M., of Warren, Ohio.

Mr. E. Lamborn, of Lancaster county.

Mr. F. J. Thomas, of Pittsburg.

Dr. Pearson, Massachusetts.

Mr. J. C. Thom, Elder's Ridge Academy.

Mr. R. Thorn, Crawford's Mills Academy.

Mr. Merrin, of Ohio.

T. M. Richards and *Jno. H. Hoopes* were appointed to report a synopsis of the proceedings of the Institute for publication in the Penna. School Journal.

FIRST DAY'S SESSION.

AFTERNOON.

Mr. *F. J. Thomas*, in the opening address, said that Teachers' Institutes commenced in the year 1840, in the State of Massachusetts, and were next held in Ohio. One grand feature is the bringing of Teachers together, and the promotion of acquaintance and sociability amongst them; though mutual improvement, by communicating their different methods of teaching and governing their respective schools, is their principal object.

Mr. *J. D. Cox* said, on English Grammar: Many pupils dislike this study, because it is so taught as not to be understood. The pupil can see no connexion between nouns and verbs and the language he speaks. We must go behind and beyond the "*thousand and one*" rules, in order to understand the true analysis of language. Grammar should be taught in accordance with the natural process of the mind of the child, in attaining a knowledge of language; first, names of objects; second, words descriptive of these objects; third, formation of easy sentences, by introducing verbs, &c., &c.

Mr. *E. Lamborn*, on the teaching of Reading, said: His province was not to illustrate the principles of any science, but the methods of teaching it. This is (or ought to be) the design of Teachers' Institutes. They are for *mutual improvement* in the science of TEACHING. He did not, therefore, intend to illustrate the science of reading, but the teaching of it. He urged the importance of teaching monosyllables at an early period; and while reading and spelling should be kept distinct, yet they should be carried on together, until the pupil is well acquainted with words. As the pupil advances, he should be thoroughly taught articulation, force, pitch, inflections, emphasis, and the other qualifications of a good reader.

EVENING SESSION.

Address by Mr. *Cox*. Subject—The true idea of education. The speaker endeavored to show that the interests of Academies and Common Schools are the same. He urged upon parents the greater importance of cultivating the minds of their children, than their fields; that to fulfil the object of our creation something more is to be done than to eat, sleep, die. The brute, in thus doing, fulfils the design of his Creator; but man was created for a nobler purpose. He urged upon teachers, the necessity of cultivating and improving their own minds, while instructing their pupils; and also upon parents their duty in co-operating with, and assisting the teacher in his arduous task.

Mr. *Lamborn* followed in an address on Elocution, in which he gave a variety of examples, illustrating the principles of pitch, force, emphasis, gesture, &c.; and dwelt particularly on the acquirement of a correct modulation of the voice; besides a clear, full, and distinct utterance; which all pupils can and should acquire.

SECOND DAY.

MORNING SESSION.

Mr. *Thomas*, on mental Arithmetic, gave a variety of exercises, illustrating the mode of teaching this important branch of a common school education, in which the members of the Institute participated.

Mr. *Cox*, on Physiology, explained the resemblance between the physiology of plants, and that of the animal body; and by explanations of the various parts of the human structure, showed its wonderful adaptation to the uses designed by the Creator.

Mr. *Lamborn*, urged upon teachers the necessity of training well, not only the vocal organs of their pupils, but their own, by a daily exercise in pitch and force; by which a correct modulation of the voice is acquired. A distinct articulation is readily acquired by practising frequently the phonetic sounds of the language.

Mr. *Cox*, on Geography, urged the importance of outline maps being constantly exhibited to the eye of the pupils. The form and location of different parts of the earth's surface will be thus impressed, as by a daguerreotype process, upon the mind.

Mr. *Thomas*, on written Arithmetic, urged the importance of impressing upon the pupil's mind correct ideas of size,—the length, breadth, thickness, &c., of objects around them. The members of the Institute, at his request, tried their skill in estimating the length of the building in which the Institute meets, and the estimates varied from 26 to 96 feet, the real length being 67 feet. He spoke particularly in favor of black-board exercise, and said that he would much rather dispense with the book than the black-board.

AFTERNOON SESSION.

Mr. *Lamborn*, on the teaching of the alphabet, spoke of the impropriety of occupying time in teaching capital letters first, as they occur much more seldom in words than do the small Roman letters.—These being taught, a knowledge of the capitals is soon acquired. He would go further and dispense with the teaching of the regular alphabet. He would teach letters in connexion with words.

Mr. *Thomas*, on mental Arithmetic, continued his mental exercises, in conjunation with the members of the Institute, to illustrate his method of making pupils ready and quick in calculating.

Mr. *Cox*, on Geography, gave a general view of the science; and concluded by proposing several questions on the phenomena of the sun's rays falling upon the earth.

Mr. *Lamborn*, on English Grammar, commenced with exhibiting the elementary sounds of the alphabet. He disapproved of teachers confining themselves to one author; rather teach the pupil to think for himself. The pupil's mind should be directed to principles, rather than names. It is not important whether the verb be divided into active and neuter verbs according to Murray, into transitive and intransitive according to modern authors, or according to some, to make no neuter verbs at all. The same distinctions must exist, by some names, until the language be changed, and what the names shall be is not material. Examples were given of points upon which authors disagree. These disagreements are of no consequence to the student in Grammar. Let the true distinctions of words be taught, and the sentences thoroughly analyzed, and the pupil may disregard disputes concerning technical terms.

Mr. *Thom*, on Arithmetic, had no sympathy with those who say that we must not teach any thing that we do not fully understand. He gave some interesting illustrations of numeration and notation; and concluded by urging the importance of teaching the pupil to think.

Mr. *Cox*, on Reading, showed the relation between reading and oratory, or declamation. As a general rule, reading should not differ from declamation:—though some exceptions must be admitted. The characters used in punctuation do not make the pause, but the pauses make the character. They do not in themselves denote the length, nor the kind of the pause; but the sense being known, requires pauses in accordance therewith. The reader should be so familiar with words, as to recognise them with *electric* speed. This can only be acquired by much practice. Rules must be natural. After some remarks respecting inflection, force, pitch, &c., he concluded with several examples of reading.

EVENING SESSION.

Address by *F. J. Thomas*. Subject—The relative duties of parent and teacher. In the course of the address it was remarked, that School houses should be made comfortable. Regular attendance of pupils required. Parents should not encourage a spirit of selfishness in their children, respecting the best seats of the school, &c., but rather that of courtesy towards their fellow pupils. This would prevent much trouble to the teacher. The teacher should never go into the school with prejudice against a pupil, no matter how disreputable he may be. Parents should visit the school: the teachers should visit the parents. The teacher should be punctual himself, to *secure punctuality on the part of his pupils*. &c., &c.

The following question was then discussed:

"Is the office of County Superintendent adapted to the end designed?"

It was participated in by Messrs. R. E. Richards, J. H. Hoopes, J. C. Thom, J. M. Brainard, J. C. Lininger, S. A. Thompson. I. F. McKee, A. B. Coleman and G. Getty.

THIRD DAY.

MORNING SESSION.

Mr. *Cox* resumed the subject of English Grammar. He doubted the propriety of authors and teachers being hasty to adopt new terms. The early grammarians exercised great care and judgment in their selection of terms, which we ought not be too hasty in changing.

Mr. *Thomas*, on mental Arithmetic, answered the objection that teachers have not time to attend to this exercise, by recommending them to take some time from other studies. He concluded with a variety of exercises.

Dr. *Pearson* commenced a course of lectures on Anatomy, Physiology and Hygiene. After some general remarks in regard to the rising interest in the science, he explained, by the aid of a human skeleton, the frame-work of our system.

Mr. *Cox*, on Geography, called upon the members of the Institute for answers to the questions proposed in a previous lecture. After hearing various answers, he gave his answers, and explained them by diagrams.

Mr. *Lamborn*, on English Grammar, still thought the methods of teaching (of which he gave some examples,) of more importance to teachers, than the disputes of authors. He explained the nature of adverbs, conjunctions, and prepositions; and again urged upon teachers the propriety of confining themselves to principles, rather than names; and concluded with some examples.

Mr. *Thom* took up the subject of Meteorology.—He made some remarks upon its importance, and stated his belief that the weather is subject to fixed laws, which a knowledge of meteorology would unfold to the human mind.

AFTERNOON SESSION.

Mr. *Cox* on Geography, after various remarks respecting the different methods of teaching geography, the definitions of geographical names, &c., concluded by a few remarks respecting the method of chanting or singing the names in geography, which he disapproved of.

Mr. *Lamborn* on written Arithmetic, cared nothing about the order of the book. He taught *principles*, rather than *rules*. In his experience, he found that if the pupil thoroughly understood the principles, he

could make his own rules; which, if agreeing with those of the book, pleased and encouraged him. If they differed, the difference was pointed out, and explained. When the pupil cannot make his own rule, the teacher should assist him to do it by his inductions, rather than because the book says so. He said his remarks were equally applicable to other branches of mathematics; and concluded with several examples of arithmetic, algebra and geometry.

Dr. *Pearson*, on Physiology, continued the explanation of the bones, in which he took occasion to caution teachers respecting their treatment of little children. After describing, to some extent, the care necessary to the preservation of bodily health and beauty of form, he showed the admirable adaptation of the 240 bones of the human system, to the purposes designed by the Great Creator.

Mr. *Thomas*, on mental Arithmetic, interested the Institute with a vartety of interesting examples on the black-board.

Mr. *Thom*, on Nat. Philosophy, contended this science was particularly adapted to young minds: and exhibited some interesting facts in nature, showing very clearly the adaptation of this study to the youthful mind.

Mr. *Cox*, on Reading, occupied the time assigned him, in giving examples in reading, with illustrations, &c.

EVENING SESSION.

Addresses by Rev. Mr. *Penny* and *J. D. Cox*, A. M. [These addresses are intended for publication.]

FOURTH DAY.

MORNING SESSION.

Mr. *Thom*, on Penmanship said: Let a child scribble, and learn to hold his pen. Don't be afraid of his wasting paper. It will give him freedem of hand. For the forming of letters, let him use the slate, black-board, &c., &c.

Mr. *Cox*, on Written Arithmetic said: There is a difference between the modes of teaching mental and written arithmetic. In written arithmetic no branch should be attempted to be taught, until every other branch it involes is fully understood.

Mr. *Thomas*, on Reading, attached much importance to accent and emphasis, of which he gave a variety of examples.

Mr. *R. Thorn*, on Vocal Music, urged at length the propriety and necessity of its introduction into all the Common Schools.

Dr *Pearson*, on Physiology. The organs of digestion were thoroughly explained.

Mr. *Cox*, on Phonetics, exercised the members of the Institute in the elementary sounds of our language.

AFTERNOON SESSION.

Mr. *Thomas*, on Reading, gave various illustrations of the different styles of reading: the high, the middle, the low, &c.

Mr. *Cox*, on English Grammar, contended that prepositions always show the relation between nouns or pronouns; and gave a number of examples, to prove his position.

Mr. *Lamborn*, on Geography, urged the importance of explaining the apparent course of the sun and its effects, such as change of seasons, &c—by dingrams on the black-board, &c., which he illustrated. He recommended chalk-drawings of outline maps, on the black-board, as an excellent method of teaching Geography.

Mr. *Cox*, on Written Arithmetic, said a fraction is merely an expression of division; and if one were understood, the other would be easily learned. It is better to teach long division before short division is taught; as the former is much more easily understood than the latter.

Dr. *Pearson*, on Physiology, besides much instructive matter, urged upon teachers their duty to have suitable seats for their pupils; thus preventing deformed spines and other ruinous diseases often caused by unsuitable seats in the school room.

Mr. *Thomas*, on Mental Arithmetic, illustrated the study by exercises, in conjunction with the members of the Institute.

Mr. *Merrin*, on Perspective Drawing, gave illustrations on the black-board, and spoke of the practicability of its being introduced into our common schools. The shortness of the time, prevented his giving a full illustration of his subject.

Mr. *Thorn*, continued his lecture on Vocal Music, and again urged its introduction into our common schools; and gave some illustrations on the black-board, of his mode of teaching children.

EVENING SESSION.

Mr. *Cox*, on English Grammar, said: The pupil should not be taught grammar too early, before the mind becomes sufficiently matured.

Dr. *Pearson*, on Physiology. By particular request of the citizens of Saltsburg, as well as the members of the Institute, the Doctor occupied the stand the remainder of the evening.

FIFTH DAY.

MORNING SESSION.

Mr. *Cox*, on Written Arithmetic, resumed the subject of fractions, and explained various methods of simplifying the rules, &c.

Mr. *Lamborn*, on Reading, illustrated the principles of delivery and the cultivation of the vocal organs, by a variety of examples of reading and decla-

mation. Illustrations were given on the black-board, of the methods of teaching the tones of the voice, &c.

Mr. *Cox*, resumed his remarks on the teaching of Grammar, which want of room compels us to omit.

Mr. *Thom*, on Meteorology, explained the different currents of the atmosphere and their connexion with rains and storms.

Mr. *Cox*, on Phonography, gave a history of the origin of the science; with examples on the black-board; and thought the elements might with propriety be taught in the common school.

AFTERNOON SESSION.

Dr. *Pearson*, on Physiology. This was the closing lecture to the Institute proper, which want of room compels us to omit.

EVENING SESSION.

It was expected that Rev. M. H. Wilson, of Jacksonville, would be present to deliver an address; but in his absence

The *Rev. W. W. Woodward*, of Saltsburg, was called upon to address the audience on the subject of education. He kindly complied, and, after a brief apology for his unexpected appearance before the Institute, he proceeded to the task, by asking, what is it to be educated? The hand may be educated to obey the mandates of the will, as exhibited in the art of penmanship. The tongue may be brought under subjection to the will and be made by education a powerful instrument in directing and influencing the affairs of nations. Music is an important element in physical education. This, however, he conceived to be but a partial idea of education. A person may be able to read correctly and fluently, he may be able to write beautifully and solve every question in Ray's or Davies' Arithmetic, and yet not be educated. The requirements of our nature demand that the moral faculties must be cultivated. The pupil must be taught to think. Thinking closely and logically supercedes the necessity of Rules. Moral and religious education are superior to the physical. A school without moral instruction, and the Bible as the text book, is worse than no school. He concluded by enjoining upon teachers to weigh well and consider the magnitude of the responsibility committed to them. He might, he said, commit with indifference the training of a dog or a horse to a groom, but his child, being possessed of a mind capable of being trained for higher enjoyments than those of earth, or of being hurried along the downward path to perdition, it became him to pause and consider under whose care and tuition he should place him. The address was listened to with interest and profit by the Institute. But as the reverend gentleman had given his thoughts on the subject without any previous preparation, they could not be procured from him for publication.

After some further business the Conemaugh Teachers' Institute was declared finally dissolved, and the meeting was adjourned with prayer by Rev. Mr. Penny.

WESTMORELAND CO. TEACHERS' INSTITUTE.

At a meeting of the Teachers of Westmoreland Co., held during a recess of the "Conemaugh Teachers' Institute," at Saltsburg, Indiana Co., October 5, 1854,

On motion, *M. Edgar* was called to the chair, and *Jno. H. Hoopes* was appointed Sec'y.

The object of the meeting was stated to be, to take into consideration the propriety of holding an Institute in Westmoreland Co.

After some discussion, it was

Resolved, That the Teachers of Westmoreland Co. will hold an Institute at Greensburg, sometime during next year.

On motion, Robert Thorn, R. E. Richards, S. G. Thompson, D. McKee and Jno. H. Hoopes were appointed a committee to draft a Constitution, appoint Instructors and Lecturers, and make all necessary arrangements for holding said Institute. The committee appointed the following persons as Instructors and Lecturers, and recommended that they prepare themselves for the duties assigned them:

Wm. W. Gill, Nat. Philosophy and Arithmetic.

G. W. Frick, Eng. Grammar.

R. E. Richards, Geography.

R. Thorn, Music and Arithmetic.

D. McKee, Music. Grammar, and Arithmetic.

W. H. Townsend, Eli McCormack, W. R. Trout, } Orthography and Reading.

S. G. Thompson, Algebra.

L. M. Richards, W. D. Fairman, } Penmanship.

Jno. H. Hoopes, Evening Lecture—Duty of School Directors.

Jno. Beaty, Eng. Grammar.

Dr. W. R. Speer, Physiology.

R. Thorn, Evening Lecture—Duties of Parents.

R. E. Richards, " True End of Education.

W. H. Townsend, " Subject optional.

On motion, the time of meeting was left to the committee, to by them fixed upon and announced.

On motion, adjourned.

M. EDGAR, *Pres't.*

JNO. H. HOOPES, *Sec'y.*

Miscellaneous Selections.

MUSIC AMONG THE NEWS-BOYS.

[Mr. Van Metre, from Illinois, was recently employed to give a course of lessons in singing to a class of news-boys, in New York. After giving his first lesson, he wrote a familiar report of it to his

brother, which appeared in the New York Musical Review, and from which we make the subjoined extract :]

Here we are at No. 38, Fulton street. Come up. Five flights of stairs, without light, are no great obstacle. You will often have to *feel your way* in this dark world. How it makes you pant to get up into the sixth story !"

"Who are these?" did you say?

Some will tell you they are the "pests of society;" not true. They are the poor, *homeless, friendless* (sometimes rather *reckless*) *News-boys.*

"Never saw such hard-looking specimens of Young America?"

You never saw real *freedom* before—freedom from shoes, freedom from coats, freedom from hats, freedom from shirts, freedom from money, freedom from home, freedom from friends or restraint. Each enjoys the "*largest liberty.*" Just look at that boy, over there, *minus* the *seat* of his pantaloons. He is not at all troubled with embarrassment. Those with hats on have a slight partiality for Quaker habits, barring the *sedateness.* See the perfect ease and independence of that boy in the corner of the room, with a green coat on, the tail touching the floor.—The mantle of a *great man* has fallen upon him.

"How can I secure their attention so as to *benefit* them?"

That is a question difficult indeed to answer, but I will *try.*

I will now tell you what I did, and give you answers (retaining, as far as memory serves, about the language used) sufficient to indicate my course.

When I took my place before the boys, some winked, others laughed, and each, without reserve, expressed his opinion *at sight.* (These News boys never *write* their speeches. They extemporize to suit the occasion. A good model, in this respect, for a teacher.) How to *begin*, was the difficulty with me.

Boys, any arrival to-day?

"Yes, sir," by the whole class.

What?

"Ferry-boat from Hoboken."

Indeed! I had not seen an account of it.

"Because you don't read the paper I sell," said a sharp-looking boy, "Mine contains the *latest* and most *important* news."

Any other arrival?

"Tow-boat just arrived with a calf," replied a hard-featured customer. This was designed as a witty cut at me, but I only replied, Poor fellow, I pity him if he falls into the hands of some butchers. Then followed various witty items of news, each speaker announcing the name of his paper. But, said I, I want the one containing the most important news of *to-day.*

"I have it," said a good-natured boy "the *Flying Dutchman; fifth edition, extra!*"

What news in it? I asked.

"The distinguished musician has at length arrived and makes his first appearance before the News-boys in the Sun Building, 6th story, to-night," was the witty and instant reply. This raised a general laugh, and I was for a moment at a loss to know what to say; but as the noise subsided, I remarked that arrivals frequently bring important intelligence. Do you wish to hear it? I asked.

"Yes, *sir*," in full chorus.

Shall I *sing* it or *talk* it?

"Sing it," and here I commenced my music lesson.

I chanted, "I will lift up mine eyes unto the hills, from whence cometh my help. My help cometh from the Lord, who made heaven and earth;" and then said, boys, when your papers contain important news, what do you do as you carry them around?

"Tell it," was the stentorian response.

Right. And now, boys, hear me sing this again. You try it. Well done. Who made heaven and earth?

"The Lord."

He is able to help me. When will I need His help?

"All the time."

But when will I *most* need it?

"When nobody *else* can help you."

I talked two or three minutes in this way, trying to fill their minds with important truths, but was careful to *stop before I tired them.* I sung to the tune "*The Watcher*," one line of "*I want to be an angel.*" They repeated it, and thus I continued through the first verse. They were delighted with the exercise. Boys, said I, did you ever feel as if you had no friend?

"Yes, sir, often."

Did you ever have any one, when you were sad, speak kindly to you?

"Yes, *sometimes.*"

Would you like to have a friend who would *always* be good to you, and *always* speak kindly to you?

"Oh! yes, sir."

Would you try to love him and please him?

"Yes, sir."

I then sung,

> "With tearful eyes I look around;
> Life seems a dark and stormy sea;
> Yet midst the gloom, I hear a sound—
> A heavenly whisper, 'Come to me?'"

and then continued, Boys, you are often invited to go with others to places that do you no good. The voice of the tempter is often heard saying, "Come to me;" and those who obey that voice, fall. Every drunkard, every licentious one, every one in prison, every one who is or has been on "*The Island,*" (house of reformation) obeyed the voice of the tempter. But here is one who invites you to come, and those who obey are happy. You have had friends who liked you when you had plenty of money, but when you got into trouble they were not there: but here is One who will never leave you or forsake you. Don't you want such a friend?

"Yes, sir," was the hearty response.

Would you like to learn this beautiful verse?

"Yes, sir."

They soon sung it pleasantly. I asked them about their homes, and ascertained that most of them had lost one or both parents. Some had lost a brother or sister. Not one of them but had lost one or more out of his family. When I spoke of their loneliness, a number of them wept; my own heart was full; how could I help it? Again I urged them to listen to the voice so kindly whispering, "Come to me." We had now occupied about twenty minutes, and I proposed a short recess; it was quiet and pleasant. After a short time I exclaimed, All ready?

"Yes, sir," eagerly responded the boys.

Boys, I want to form a sort of joint stock company

You have been selling papers "on your own hook." Each has worked for himself; but we will get on better by pulling together. Each one may own as many shares as he wishes, and draw out in proportion to the deposits. The object is the promotion of each other's welfare. What say you, boys?

"Agreed."

I divested my proposition of obscurity, and urged each to do what he could to make others happy.—Would you like to extend your labors so as to make your *homes* happy?

"That we would."

But how can you supply the wants of your mother and little sisters and brothers?

"You've got me there," said one little fellow near me, as he wiped the tears with his dirty, ragged shirt-sleeve.

Poor fellow! his image is in my heart as I write.

You will soon need warm clothes yourselves, and how will you get them when Jack Frost gets hold of your toes, or Old Winter blows his cold breath through the holes of your coat?

"Ah! that's the rub: I wish I knew," said one of the larger boys.

How do the bee and ant supply *their* wants in the winter?

"By working and saving in the summer."

Right, my boy. Does the beautiful butterfly have anything in the winter?

"No, sir."

Why not?

"Because she don't lay up in the summer."

What do we learn from this?

"To do like the bee and the ant."

Here we sung again.

Now, boys, said I, I propose to call this the "Newsboys' Musical Association." I want you to learn to sing, for three reasons:

1. The singing of the *right kind* of songs will make you *better*.

2. It will make you *happier*.

3. We will, at some suitable time, invite our friends to witness our progress and hear us sing, and I am sure they will be pleased to contribute liberally to assist you in taking care of your dear mothers and little sisters and brothers.

"Unanimously carried," shouted one fellow, as he caught the idea.

Our company was organized without President, Secretary, Treasurer, Constitution, or By-Laws, (a good model for the organization of a choir. Most of our choir difficulties result from such incumbrances—election of officers, &c., &c.) We sung the gold-diggers' song "We've formed our band," &c.

By this time the way was prepared for me to begin more direct musical instruction; so I gave them a simple lesson (of about five minutes' duration) on *time*. This I did by counting before them, and causing them to count, "one," "two," (giving the accent to "one," and the falling inflection to "two," yet saying nothing about it,) in such a manner as to bring clearly before their minds the idea of the division of time into equal portions, as a principle of *tone* measurement. They manifested great interest in this exercise.

Having done this, I introduced another department, by singing a tone at about the pitch of C—"middle C"—repeated it several times, and caused them to repeat it. Do you like this tone? I asked.

"Yes, sir," they replied.

We will then adopt it, and give it a *name*. I propose to call its name *one*.

"Agreed!" shouted the class.

I then sung it several times to the syllable *la*, and to various sentences, such as "silence," "sit up straight," "open your mouths," "love one another," "obey your parents," &c., &c. (I avoid using the syllable *do*, *re*, &c., &c., especially at first.) Now, boys, said I, listen, and when you hear this acquaintance of yours, call him by his name. I gave it to the syllable *la* several times; each time they said "one." I then gave *two* of the scale. Upon hearing this new tone, they exclaimed:

"Put him out! he is a *stranger!* no friends in this crowd!"

Hold on a minute, boys! said I; this *stranger* may prove to be a great friend to you yet. Let's approach him respectfully, and form his acquaintance and perhaps you will like him. Treat strangers with respect, for sometimes they are angels.

After repeating these tones several times, and making a little tune of them, the boys agreed to adopt the stranger, and call his name *two*. In like manner I introduced four tones of the scale.

Here I ended my lesson, proposing to meet them again on the following night, and show them a pair of human lungs, and tell them some important and interesting things about the bellows connected with their "music-box." I requested them never to be ashamed to speak politely to me in the street; that I was not ashamed to be seen shaking hands with a News boy who was nobly trying to help himself and his family to obtain an honest living. Boys, said I, if you get sick, send for me. If your heart is sad, come to me, and tell me your sorrows, and I will try to make you happy.

Now, boys, I asked, have you spent a pleasant hour?

"Yes, sir—very."

Have you been benefitted?

"Yes, sir."

Boys, did you ever pray?

"Yes, sir, *when I lived at home*," said one or two.

We have had such a pleasant evening, I replied, that I feel as if I would like to pray before I bid you good-night. Will you pray with me, boys?

"Yes, sir," said they, in a softened tone.

Please clasp your hands. They obeyed, and I repeated the Lord's Prayer, which they reverendly repeated after me. I then thanked them for their kind and polite attention, and bade them a kind "good-night."

Discouraging as it seemed at the beginning, I secured their attention without difficulty for an hour. Do not infer from what I have written, that I was "preaching" to them. At least three-fourths of the time were spent in singing. The remarks not directly bearing upon the subject of music, were incidental, growing out of the circumstances of the occasion; and I think every judicious teacher will avail himself of the opportunities of imparting such incidental instruction, not only because of its value to the pupils, but because of the additional power and influence it gives him over them. This is truly an important field. May I be enabled so to teach these dear boys as to be a blessing to them. I know they may be "hard cases," and that they are regarded by many as *hopeless*, but I tell you this is all wrong.—These boys have some noble traits. They struggle

in adversity, determined neither to *starve*, *steal*, nor *beg*. The trouble with many who would be their friends, is, they do not know how to *approach* them. They *insult* them by their *manner* of showing them kindness. Too many, alas, show their sympathy by building prisons, and providing houses of correction, rather than by speaking kind words, and lending a helping hand. To this there are honorable exceptions. Many are nobly laboring to encourage, protect, and elevate the poor and friendless. Through the liberality of several gentlemen, this room is furnished, and instruction in the evening is given to those who desire it, in various branches of an English education. Attached to this, is the "News-boys' Lodging Room." Everything is neat, clean, and comfortable.

Addresses, Reports, &c.

MR. COLBURN'S REMARKS

Before the American Institute of Instruction, on Arithmetic.

At the close of Mr. Hedge's remarks before the American Institute of Instruction, on the subject of Arithmetic, Mr. Dana P. Colburn, Principal of the State Normal School, Providence, R. I., continued the discussion as follows:—

Mr. President, and Ladies and Gentlemen:—As it is probably the wish of all present that the discussions before this Institute shall be of as practical a character as possible, I shall avoid all mere theories, and endeavor to offer such suggestions as my experience and observation have convinced me may be of value.

The subject of Arithmetic, as I understand it, is included within these limits:—To be a perfect arithmetician, a person must, in the first, place have a knowledge of the nature and uses of numbers and of the various methods of representing them. In the second place, he must have a knowledge of the nature and uses of numerical operations and the methods of indicating and performing them. These operations are four in number, viz: addition, substraction, multiplication, and division. Thirdly and lastly, he needs, in addition to these, such mental discipline as shall enable him to determine, from the conditions of any given problem, the operations necessary for its solution.

A person with these qualifications I hold to be a perfect arithmetician; such as a teacher should strive to make of his pupils. And in trying to accomplish this, he should endeavor so to shape his course as to secure the greatest possible amount of mental discipline, the best possible habits of thought, and the best preparation possible for the active duties of life.

The first thing to be done in teaching this department is, to make the scholars acquainted with the nature and use of numbers. The idea of number is of itself an abstraction. We have then to make our pupils acquainted with an abstract idea, and, as we were told in the lecture yesterday, we can only impart abstract ideas by first presenting a representation of them in the concrete. The first idea of number then must be given by reference to visible objects, as marbles, pebbles, pens, books, &c.;—no matter what they are, if they are such as can be easily exhibited to the pupil or readily handled by him. He should apply the term "*one*" to each of these, and to a variety of other objects, absent as well as present, and to words and actions as well as things.

This might perhaps be the first lesson, I would give this great variety of illustrations, because it seems important to leave in the mind a clear idea of unity, the abstract number one, as applicable to any object, and yet independent of all. Moreover unity is the base of all numbers, and unless its nature is understood, no higher number can be comprehended.

The pupil is now prepared to pass to the next number, *two*. To teach this I would exhibit any object and let the pupil apply the term *one* to its name, as "*one book*"; then exhibit another "*one book*," then both together. They may be called "*one book and one book*," for the present, or we may at once give the name "*two*"; it matters not which, for it is the idea of the union of one and one which is to be taught, and words must be subordinate to ideas always.—These illustrations should be extended and varied till *two* is as familiar as *one*.

Instruction should now be commenced in the various numerical operations, always presenting them first in the concrete, and illustrating each to the eye. Thus, [taking a book] "How many books have I?" If I should get another how many should I have?—[Taking another] "How many have I?" How many more than before I took the last? If I should put one away, how many should I then have? &c., &c.

Then without exhibiting the objects, "How many peas are 1 pea and 1 pea? 1 pea from 2 peas leaves how many peas? 1 pea and how many peas are 2 peas?" &c., &c. And finally such abstract questions as "How many are 1 and 1? 1 and how many are 2? 2 are how many more than 1? 1 is how many less than 2? 1 from 2 are how many? 1 from how many leaves 1? 2 less 1? 2 less how many are 1? how many from 2 leave 1?" &c., &c.

I would present this great variety of questions and exercises to insure that the pupils shall have, at the outset, a true idea of the nature and use of numbers and numerical operations; that they shall *master* each number before passing to a larger one, and be able to compare each with every preceding one. Such thoroughness is essential to all true progress, and a want of it is the cause of a greater part of the difficulties which so often beset the path of the student in this department of science. If the teacher will see to it that each step is taken at the right time, and understood when taken; that each process follows naturally from a preceding one, and is mastered when it is introduced; that the mind of the pupil is ever kept active and his attention fixed;—the pupil will never, from the beginning of his course to the end, encounter any insurmountable or formidable difficulty. The questions in abstract numbers should be given very rapidly, to secure promptness, rapidity, and accuracy of thought, and fixed attention.

Simple practical problems, (stories, they may be called, to add to their interest,) should now be given; as John had 1 cent, his father gave him 1 more; after which he lost 1. He soon after found 1 by the road side, and spent one for candy, and 1 for raisins. His mother then gave him 1 for being a good boy, and again he found one. He now gave 2 to a poor old woman, and did an errand for which he received 2 cents. He spent a cent for nuts, and received one for doing an errand. He then had the misfortune to lose 1 cent, how many did he have left?

This question involves only the numbers *one* and *two*, and is so simple that the smallest pupil can com-

prehend and perform it, yet it requires for its solution a continuous train of thought and investigation, and reasoning processes as complete as any required in arithmetic. Every scholar who solves it as it is given, must give his individual attention to it; must follow through a continuous train of thought; must note each condition, determine what operation it requires, perform the operation, and determine what use to make of the result; in short, must concentrate his entire mental energies, for the time being, on the work he is performing. How can such work be other than valuable to him? How can it do otherwise than discipline his mind and give him intellectual strength and vigor? And what more profitable work can he be called on to perform? What work will as surely lay a foundation for real or rapid after-progress?

The other numbers should be introduced in the same manner, and similar exercises should be given in each, till the first ten numbers are learned and mastered in all their various combinations. This done, the foundation is laid; the most difficult work accomplished. All else connected with the mechanical operations of addition and substraction, the basis of every other is but an application and extension of operations on the numbers from one to ten. The child who knows that 4 and 3 are 7, has but to know the decimal formation of the higher numbers, to know that 40 and 30 are 70; that 400 and 300 are 700; that 4 trillions and 3 trillions are 7 trillions, &c., &c: So with 5 and 4, 15 and 4, 25 and 4, 85 and 4, 35,000 and 4000, &c., &c. Again 4 from 7, 40 from 70, 4000 from 7000, 24,000,000 from 27,000,000, &c., &c., exhibit the same dependence. Again, 4 times 3, 4 times 30, 4 times 30,000, 4000 times 3, &c., &c., are further illustrations of it.

Such being the case, it is of the utmost importance that here, in the primitive operations, we should be especially thorough, and that whatever amount of time is necessary to give the pupil a mastery of this fundamental work should be given to it. These operations, which we call addition, substraction, multiplication, and division, are all of like nature, all dependent on the memory. For instance, the child knows that 4 and 3 are 7. How does he know it? He once saw 4 things, then 3 things, then the two collections combined, and by counting he found that the united collection contained 7 things. This is true whatever are the objects, and it only remains to commit it to memory. At first it may be difficult to call up the idea of 7 whenever 4 and 3 are to be added; but by continued repetitions the thing becomes so familiar that the mention of 4 and 3 suggests 7 to the mind, without conscious effort. So with all other of these primitive combinations. If I speak to you of 8 and 9, the idea of 17 flashes into your minds as instantaneously and as certainly as though I had presented it by its more abbreviated representative, its name, *seventeen*. So the child should be taught at each step of his progress. He should be drilled now on one form, now on another, till these combinations are as familiar with him as with you, and as firmly impressed on his mind as they are in yours.

These mechanical operations on the ten primitive numbers, however dry subjects of discourse they may be, and however trifling and unworthy of attention they may appear, are of the utmost importance in the science and art of Arithmetic. They are just what the letters of the alphabet are to reading. We *expect* to have *all* our pupils acquire such a power over the letters of the alphabet as to be able to call each printed word the moment their eyes fall upon it.—No one is a tolerable reader who cannot do this readily and easily, and no amount of labor necessary to give this power is regarded as too much to devote to the *primary* lessons in reading. So the child should be drilled in this department of numbers, till he has such a power over them that the instant his eye falls on the numbers to be combined, he can seize the result and use it. Anything less than this is insufficient.

This power over numbers is as easily acquired as the power over the letters of the alphabet, to which I have referred. And how is that obtained? The child first learns some of the letters. Then the teacher combines them in a word, as CAT. The teacher calls the word; lets the child call it after him; points out the letters separately and lets the child distinguish each; points out the word in another place to see if the child can recognize it; requires the child to point it out and call it, now by itself, now to select it from other words;—and so he goes over it again and again, day after day if need be, till the word is *learned*. We have all been taught in some such way as this, and what a power do we possess in the art of reading! We take a book which we have never before seen, and which treats on an unfamiliar subject, yet we can call the printed words as rapidly as we can speak. Nay, more; the eye and the mind can recognize them more rapidly than the tongue can utter them. So skilled may we become in the mere mechanical art of reading that we may read pages aloud, calling every word correctly, and yet not note a single thought which has been expressed. In reading, the eye is usually in advance of the tongue.—Who that reads much aloud, has not at some time or other found his eye glancing at words printed in one place, his tongue pronouncing words printed in another, and his mind dwelling on thoughts expressed by words printed in still another?

A similar course would give our pupils as great a power over numbers. Accountants often acquire it. An accountant once told me that in adding up long leger columns, he had often been surprised to find his eye at the top of the column, the result of the addition at his tongue's end, while, as far as he knew, his mind was engaged on numbers expressed between the bottom and top.

In passing to operations involving higher numbers, they should be so presented as to exhibit their dependence on the primitive ones, and to secure at once accuracy, confidence and rapidity. A thorough drill should be given upon the mechanical processes, and to insure the best possible results, the exercises should be given in a great variety of forms. I will suggest a few of them.

How many are five, nine, eight, seven, four, nine, six, eight, seven, six, eight, five, nine, three and six?

How many are twenty-four, plus eight, plus six, minus nine, minus four, plus seven, minus eight, minus five, plus seven, plus nine, plus eight, minus four, minus six, plus two?

How many are five times seven, plus one, divided by six, multiplied by nine, minus six, divided by six, multiplied by eight, plus nine, plus six, plus five, divided by seven?

Multiply three-fourths of twelve, by two-sevenths of twenty eight, add one-eighth of forty, divide by one-seventh of forty-nine, multiply by three-eighths of sixteen, and add four-ninths of eighteen.

These are but a few of the forms in which such exercises may be given. The questions should be given as rapidly as the condition of the class will allow, and scholars may be profitably exercised upon them, in connection with other work, at all stages of their progress. No very great amount of practice is necessary to give pupils a power of performing such operations as rapidly as the tongue can indicate them. I have to-day given these examples no more rapidly than I am in the habit of giving them to my own pupils, or than they are given daily in some of the Public Schools of this city.

By such exercises, pupils not only gain an almost perfect command over numerical operations, but they acquire great mental activity and quickness of thought, and a power of concentrating their undivided energies on the process they are required to follow. They must shut out from their mind, during the operation, everything which does not belong to it, or they cannot obtain the result; for if a single number or step of the operation is lost, it cannot be recalled, nor is there any time to rectify errors.—Such work, then, aside from its arithmetical utility, cannot fail to give much valuable mental discipline.

The reasoning processes of Arithmetic should receive the careful attention of the teacher. They are sometimes apparently difficult and complicated, but may always be reduced to very simple elements.—Those involved in Multiplication and Division can be the most easily exhibited in such a discussion as this; and I will ask your attention to them for a few moments. Suppose that the question, "How much will four apples cost at three cents a piece?" should be proposed to a class. The answer promptly given will be 12 cents. "But how do you know?" says the teacher. "Because 4 times 3 are 12," replies the scholar Mary.

But this is not enough. The scholar should trace clearly and state the connection between the problem and the result, 4 times 3; but he should first be led to see the deficiency of his former answer. To show him this, the teacher may reply, "Yes, I know that 4 times 3 cents are 12 cents, and so 4 times 4 cents are 16 cents. Why do you not say 16 cents then?" "Because the apples cost 3 cents a piece; not 4."—"Then why not say 15 cents, because 5 times 3 cents are 15 cents?" "Because there were only 4 apples, and they cost 3 cents apiece." The pupil will now see that to make his reasoning perfect, he must take into account the number of apples and the price of each, and will after a little effort be able to give a perfectly rigid demonstration, similar to the following. "If one apple cost 3 cents, 4 apples will cost 4 times 3 cents, which are 12 cents. Therefore 4 apples at 3 cents a piece cost 12 cents."

It is much better that the scholar should thus discover this process for himself, than that the teacher should give him an arbitrary form for it, for he will better understand and appreciate his nature. Moreover he will be thrown more fully upon his own resources, and will do more of the work for himself.—It should be always borne in mind that it is work which the scholar does for himself which educates him. The work done by the teacher cannot do it.—He is the best teacher who throws the most work on his pupils, and does the least direct work for them. Indeed, were it possible for a teacher to stand before his school and do nothing himself, yet keep every scholar profitably and constantly employed in performing the appropriate work of the school-room, he should do it; and he who could do it, would best deserve the title of Model Teacher.

The reasoning process now given, simple as it is, is the key to all processes in Multiplication which are required in Arithmetic, even those which depend directly on Algebraical or Geometrical principles.—There is not in Arithmetic, from beginning to end, a question requiring a multiplication not depending directly on Algebra or Geometry, which does not require essentially this process. By fully mastering it, then, in its simplest form, we are preparing to refer to the same simple principles, questions apparently entirely unlike.

Thus 4 yards equal how many feet? This question is, in works on Written Arithmetic, classed with questions in "Reduction Descending," and a special rule is given for their solution. But it requires (the Tables being learned) no new principle, reasoning process, or operation. Thus since one yard equals 3 feet, 4 yards must equal 4 times 3 feet, which are 12 feet.

Reduce 4 to thirds. This is classed with questions in the "Reduction of Whole Numbers to Improper Fractions," and is honored with a new rule. The simple solution, however, is, "Since one equals three-thirds, 4 must equal 4 times three-thirds, which are 12 thirds."

"What will 4 yards of cloth cost at 3-twentieths of a dollar per yard?" This again is thrown into a new class, viz:—"To multiply a Fraction by a Whole Number," and has its peculiar rule. The solution is however as before. "If one yard costs 3-twentieths of a dollar, 4 yards will cost 4 times 3-twentieths of a dollar, which are 12-twentieths of a dollar." The list might be extended indefinitely, but cases enough have been given to show the absurdity of the common classification, or rather the absurdity of requiring scholars to burden their memories with formal arbitrary rules. I have given four questions, all, as we have seen, alike in principle, and all involving the same reasoning process; yet by the system of rules, the pupil is required to learn them as though they had nothing to do with each other. He first learns his rule for Simple Multiplication, then, after turning over a few pages, he comes to Reduction Descending, when he must learn a new rule, and how to work by it; a little further on is Reduction of Whole Numbers to Fractions, with a new rule to be learned, and a process presented as new to be mastered; and so on again to Multiplication of a Fraction by a Whole Number, when the same process is to be repeated. Now is not this unphilosophical? Does it not render the subject altogether too complicated, and impose a great amount of needless labor on the pupil?

In Division, there are two forms of reasoning process corresponding to two distinct classes of questions. One of them will be required in the solution of the question. "How many apples at 3 cents apiece can be bought for 12 cents?" The reasoning process required is in spirit as follows:—"If for 3 cents one apple can be bought, for 12 cents as many apples can be bought as there are times 3 cents in 12 cents, which are 4 times Therefore 4 apples at 3 cents apiece can be bought for 12 cents."

The following questions require this process:

12 yards equal how many feet?

12 thirds equal how many ones?

How many yards of cloth at 3-twentieths of a dollar per yard, can be bought for 12-twentieths of a dollar.

To illustrate the other form of reasoning process, let us consider the question, If 4 apples cost 12 cents, what will 1 apple cost? The reasoning process is, If 4 apples cost 12 cents, one apple will cost one fourth of 12 cents, which is 3 cents.

The following questions require the same process, which, as will be perceived, recognizes the principle of Fractions.

What will 1-fourth of a barrel of flour cost at 8 dollars per barrel.

If 4-sevenths of a yard of cloth cost 12 cents, what will 1-seventh of a yard cost?

The processes thus hastily sketched are all which can occur in Multiplication and Division, except when we come into the province of Algebra and Geometry. They will not always assume precisely the forms which have been given, but in spirit and essence they will be the same. And they are the key to all operations in Multiplication and Division. Equally simple and general are the processes required in Addition and Subtraction. We would not be understood to say that no problem requires the application of more than one of these processes; far from it. A problem may require several of them, or that the same process shall be many times repeated; but each process shall of itself be simple, and in all such cases the original problem can be resolved into a series of simple ones, each as simple and easy of solution as those we have given. We say, then, that these processes, are the key to all arithmetical operations, and submit the question,—Is it not better, is it not more philosophical to require our pupils perfectly to master these, and to base their work upon them, and learn every where to apply them, than to burden their memory with so many arbitrary rules and useless distinctions? In the one case we are teaching principles, developing the reasoning powers, and cultivating the whole mind; while in the other we are teaching forms and cultivating the memory only.

In Mental Arithmetic we take such a course as has been recommended. We do teach principles, we do require our pupils to follow out rigid reasoning processes. What teacher in using Warren Colburn's First Lessons ever thought of giving his pupils a rule? Yet every one praises that book as the best ever written; every one who ever studied it speaks of it as the one from which he derived his most valued arithmetical knowledge and discipline. Why is this? Simply, I fancy, because it has no rules, because it throws the pupils so much upon their own resources, compelling them to learn principles, to follow out rigid reasoning processes, and connected trains of thought, to examine and know for themselves the necessity and reason of the steps they take and the operations they perform.

When the scholar has been through Mental Arithmetic and takes up Written, he seems to have entered on an entirely different field, where all that he has formerly learned is to be thrown away. At the very outset he is required to learn an arbitrary rule, then another, then another, &c., &c., learning each as a new and distinct thing, having nothing to do with any other principle or process, or with anything previously learned; when perhaps precisely the same operations may be required, and the same principles involved in all of them. Is this philosophical? What difference is there between Mental and Written Arithmetic, to require so wide a difference in our methods of teaching them? The only real difference in their nature is that in Mental Arithmetic we must retain in the mind the numbers we use and the results we obtain, while in Written Arithmetic we write them, and thus relieve the memory.

Another point which I would suggest is, that scholars ought always to prove their work for themselves, instead of verifying it by comparison with the work or answer of another. I believe that the practice of placing the answers to arithmetical problems within reach of the pupil, either in the text-book or key, is always injurious.

In the first place such tests are unpractical, for they can never be resorted to in the problems of real life. What merchant ever thinks of looking in a text-book or key, or of relying on his neighbor to learn whether he has added a column correctly, drawn a correct balance between the debit and credit sides of an account, or made a mistake in finding the amount of a bill?

When a pupil, having left the school-room, performs a problem of real life, how anxious he is to know whether his result be correct! Neither text-book not key can aid him now, and he is forced to rely on himself and his own investigations to determine the truth or falsity of his work. If he must always do this in real life, and if his school course is to be a preparation for the duties of real life, ought he not to do it as a learner in school? Is it right to lead him to rely on such false tests?

But the labor of proving an operation is usually as valuable arithmetical work as was the labor of performing it; and it will oftentimes make a process or solution appear perfectly simple and clear, when it would otherwise have seemed obscure and complicated.

Again, the science of Mathematics, of which Arithmetic is a branch, is an exact science; it dwells in no uncertainties, its reasonings are always accurate, and, if based on true premises, must always lead to true results. In Arithmetic, the pupil may always *know* that a certain step is a true one, and one which he has a right to take. He may *know* whether he has taken it correctly, and thus be certain of the truth of his first result. He may be as sure of the truth of his second step and second result, and of his third and his fourth. And when he reaches the end, and obtains his final result, he may be as sure of the truth of that as of any preceding; so sure that he will be willing to abide by it and stake his reputation upon it. And the subject should always be so presented that the pupil will be forced to apply such tests, and to determine for himself the truth and accuracy of his processes, and thus be led to form a habit of patient investigation and just self-reliance.

With these views, then, I would do away with everything like an answer in the text-book, and with everything like a key. I would from the first throw the scholars on their own resources, and hold them strictly responsible for the accuracy of their work.—Such a course, faithfully followed, would almost entirely prevent the formation of those careless habits of work which scholars so usually form. How often may we see a scholar studying with book and slate before him in a manner something like the following. The book is open perhaps at simple addition. Every problem on the page is one in addition, and usually all the numbers in each problem are to be added together. The pupil knows this, and so, without read-

ing the problem he is to solve, or noting its conditions, he writes all the numbers mentioned in it, adds the first column, compares the unit's figure of the result with that of the answer in the book,—if alike, right; and the second column is added; if unlike, wrong, and the whole is removed, only to be re-written as carelessly as before, or to prepare the way for the call, "Please to show me how to do this sum."

Is not this a true representation of what has taken place again, and again, and again in our schools, and is called the study of arithmetic? But it is no study, it is caricature on study. And can we wonder that pupils who pass through our schools, subject in a greater or less degree to such influences, fail to become fitted for business pursuits and duties? Go to the counting-room and ask the merchant if the boys who come to him from the school with the reputation of being good arithmeticians are prepared for an accountant's duties, and he will tell you that he would scarcely trust one of them to add up a leger column, or make out a simple bill. Ask him again if he follows the processes he learned at school, and he will reply that he never uses them, and has entirely forgotten them; yet he will put our school-boys to shame by the rapidity and accuracy with which he performs his work; and he has acquired this power by being thrown on his own resources, by being forced to throw away all arbitrary rules, by learning to consider each example by itself, by learning to seize it in its most vulnerable point, and perform it in the readiest manner possible. So it should be in our schools.

Is it asked, "Would you have no rules?" I think them useless, unless for the operations depending directly on Algebra and Geometry; for so long as the scholar finds it difficult to reason out and explain fully his processes, the labor of doing it will be the most profitable which he can perform; and when it becomes perfectly easy, the whole thing will be understood, and no rule will be needed, other than that which the scholar himself will give in describing his processes.

I have thrown out these sentiments, Fellow Teachers, for your consideration. I have spoken very freely and frankly, and have endeavored to give my honest opinions and views, assured that they will receive such treatment at your hands as they may deserve.

THE DEVELOPMENT OF MIND.

An Address delivered before the Conemaugh Teachers' Institute, Oct. 1854, by the Rev. T. J. Penny.

Ladies and Gentlemen of the Conemaugh Teachers' Institute:—Standing in the presence of many whose experience, research and skill, furnish them with superior qualifications for discharging the difficult though pleasant task, on which I now enter, I should prefer standing as the figure of Harpocrates stood, in the sanctuary of ancient Egypt with his finger upon his mouth, indicative of profound silence: but since you have called me to this position, allow me to lay upon the altar of your kind preferences, a tribute of humble gratitude.

To the delivery of an address, on an occasion like the present, we are often inclined to attach much of honor; but to it we should not attach less of difficulty. The incident obligations imposed upon the speaker, not unfrequently render it almost impossible for him to adapt himself to the expectations of his audience, either in the selection of a theme, the materials, or manner of his address.

The celebrated orator and civilian of Rome, by a power altogether peculiar to himself, and perhaps never equaled save by the princely eloquence of Greece, could bend the whole mass of mind before him, causing it to bow, in admiration, before the classic structure of his own, with a mental force, almost as irresistible as the physical force by which the raging storm with its tongue of fire and voice of thunder causes the native mountains to tremble, and the ancient forests to bow in token of humble respect. To Cicero, an appropriate address was a matter of comparative ease; but to one presuming no claim to such power, it is a task prolific both of difficulty and anxiety.

In looking over this assembly, we are presented with a three-fold aspect: Here is youth, just blooming forth on the great stem of existence, with its peculiar fascinations, soft and glossy curls, smiling faces, healthful cheeks, and glowing eyes: here, too, is middle age, deeply merged in the pursuits of active life, with faces unmasked of youthful smiles and beauty, rendered intense by care and hardened by contact with the world; with eyes of keen discernment and acute speculation: here, too, is old age—a period, handing on the verge of two worlds—bearing in shattered frames, in trembling limbs, in silver locks, and faded eyes, the impartial marks of decline.

To the first of these classes, a theme, flattering the fond anticipations of youth, might not appear to be inappropriate: to the second, a theme, combining the disappointments of the past, the speculations of the present, and the popular hopes of the future, might commend itself as adequate: and to the third, a theme, blending the nothingness of human life, the reality of eternity, with the calm solitude of the grave, might appear to be suitable. But in avoiding partiality to any of the above distinctions, we have chosen a theme to which, we hope at least, the common attention of this audience will yield with a kind acquiescence. It is the Development of Mind.

The Book of Nature is a catalogue of contrasts. Every thing seems to have its opposite; the elements stand in positive and negative attitudes. We realize lights and darkness; heat and cold; calm and storm; silence and sound; motion and inertia;—a universe, an atom; we conceive the material and the immaterial; the visible and the invisible; the mortal and the immortal;—we witness animate and inanimate; sensitive and insensitive; capable and incapable; rational and instinctive creatures, uniting in their wonderful combinations—all contributing a link to the endless chain of contrast.

The intelligent principle in man—that surpassing stroke of divine art—though in its essence and ar-

rangement, it contrasts a universe, yet in its undeveloped infancy, it presents a complete organism.—In that state, it is a germ, in which are folded up all those properties so essentially peculiar to itself, and it only needs to be brought in contact with the external causes, to discover those properties in gradual, but endless development. Like the folded bud hanging on the dew tinseled stem, it only needs to be opened to display the leaves, the colors, the beauties, and the perfumes of a full expanded rose. An undeveloped mind is *itself* folded up; a developed mind is *itself* unfolded. In its native undeveloped state, it is like the insignificant acorn, which contains the mighty oak; but in its development we see the tree bursting the shell, defying the storm, and throwing out a thousand leaf-clad branches to a noonday sun or a midnight sky.

The mind, as it advances on the scale of development, in its enlarging capacities, can retain the past, comprehend the present, and anticipate the future. Memory—that faithful secretary of the mind—transcribes the events of time, familiarizes oblivion, and brings up the fading relics of antiquity to the clear sunshine of the present. Observation—that sleepless eye of the researching mind—takes within its prospect, the growing and declining, the brightening and the fading, the rising and the mouldering aspects of the world, plucking flowers from the beautiful, sciences from the profound, and virtues from the useful.

And Hope—that agile precursor of the advancing mind—throws open the front gates of time, and, as with the power of sun flash, casts the light of anticipation, upon the ebon face of the approaching future. Possessed of the capacities, the mind stands with avenues of access, opened to the past, the passing, and the coming.

As the windows of the ancient Pantheon, were the apertures through which the light of the sun fell upon the clustered gods within,so the five senses are avenues by which the external rays of knowledge fall within the temple of the mind, where reason, godlike, sits enthroned, educing its undeveloped intellect, opening its native resources, calling forth its slumbering energies, and enlisting its unconscious strength on the arena of mental strife.

Furnished with these senses, the Pantheon of the mind, stands, with unshaded windows, to the broad sun-blaze of knowledge, and as by these openings of access, the mind receives its drafts from the common storehouse of nature, so the use of the tongue, and the pen become the grand channels by which it again recommunicates its investigations to the world. Furnished with these channels of communication, each speaking and writing mind, as it draws its supplies from the common ocean of thought, gushes forth, fountain-like, from the deep bowels of research, and becomes a tributary to that tide of popular knowledge that has been increasing as the world has advanced.

We now proceed to notice some of the external causes tending to the development of mind.

In speaking of the development of human mind, it should never be forgotten *that it is a thing to be taught: a thing to be educated:* Its full development is not spontaneous, nor is it coetaneous with its birth; it does not by one grand exertion, attain a consummate growth. This is only approximated by the gradual process of education. Mind advances "little by little; step by step." Euclid was once asked by King Ptolemæus Lagus, "If there was not an easier way to the knowledge of Geometry than that prescribed in his Elements?"

The great master of mathematicians promptly replied: "there is indeed no royal pathway to Geometry."

In the acquisition of science, the prince and the plebian must walk the same path together. Unyielding study is the only path that terminates on the hill of science. This is not only true of scholastic tuition, but also of that endless advancement of which the mind is capable, and by which it may be, forever, ascending on the scale of intelligence, and yet never be able to place its feet on the summit of infinite knowledge. That advancement of mind that reaches beyond a limit has been expressed in the following lines:

"Thy flight stops not, immortal mind!
Till through regions vast, unconfined,
Thy course with ages fondly rolls
And seeks the station of eternal poles.
Beyond the orbits of the spheres,
On thy fond path of endless years,
Thou wilt walk with ancient sages
'Long the brink of future ages;—
Still looking on the vast domain
Of eternal cycles that remain,
Thy course, like rolling spheres will tend
To circles round that ne'er shall end."

To the development of mind, it should not be forgotten, that the teacher sustains an important relation. The teacher is a cultivator of intellect; the school is his field; the native mind his soil; and the sciences his seed. His business is to give the sprouting idea a correct inclination, and teach it with as much care to climb the columns of the literary temple as the ancient florist, with modest taste and skillful hand, taught the vine to creep over the broad pedestal, entwine the lofty statue, and wreathe the brow of the stately Collosus.

The pupil is the teacher's subject, and to that subject he sustains no less a relation than does the sculptor to the rude marble. The unbroken quarry contains the slumbering statue; the chisel of the artist only brings it out: The untutored mind contains the scholar; it only needs the teacher to bring it forth. The sculptor balances the marble block: then wields the hammer and the chisel: at first only the dim outlines appear; each successive stroke brings

out more clearly the statue till the last, which leaves the marble man in bold development. The mental artist but sculptures out the intellectual man; and when the last stroke is applied, and the features of the mind are all brought forth, the teacher may compliment his own skill in the terms of the Venusian Horace: "Exegi monumentum perennius ære."

As in the proportion and features of the statue is witnessed the skill of the artist, so in the phases of the pupil's mind, is scarcely seen less of the teacher's skill.

To look upon those models of modern art displayed in the Senate hall and Laurentian Library at Florence—the Sistine and Pauline chapels—is but to admire the skill of the great Angelo, eminent alike in painting, sculpture, and architecture: but to look upon the Stoic disciples coming forth from his school of heathen philosophy, we no less witness in the peculiar conformation of his mind, the refined skill of Zeno his master: or, if we look into the Platonic Academy, founded on the opinions of Heraclitus, Pythagoras, and Socrates, we see in the pupil but a second portraiture of Plato, his skillful instructor. As the harder, leaves its impress on the softer substance, with which it is brought in contact, so the mind of the teacher leaves its impress on the yielding mind of the pupil.

The relation, subsisting between the teacher and the pupil, is so essential, that the latter is forever indebted to the former. History informs us that Alexander the Great, in a tribute of gratitude to his instructor, said of Aristotle, the disciple of Plato, but afterwards the preceptor of the world's conqueror, "that he was under greater obligations to him for his instructions, than he was indebted to his father for his being." Nor did the peculiar taste of Aristotle, in his admiration of Homer, from whom he extracted his models of heroism, fail to display itself in the ambition of his royal pupil, Alexander.

Because the teacher's position imposes upon him the weight of responsibility, it should therefore be the mightiest struggle of his energies to render himself proficient in his profession. It was the unrelaxed application of his energies to the art of painting that enabled Angelo, in the sixty-second year of his age, to present in his scene of the *last judgment*, one of the finest specimens of art the world ever saw. The mastery of any profession, art, or science, can only be attained by unyielding application. Proficiency is the result of untiring energy.

In aiding the pupil through his literary course, the teacher only fits him for passing out of the school room into the world. He must then become his own instructor: he is then responsible for his own advancement, and to his own exertion he must look for that enlargement of mind after which he is now left alone to toil. It is said both of Benjamin Franklin and Benjamin West, the former a renowned philosopher, the other a celebrated painter, "that they were their own instructors, and that each one had a better teacher every day, for each one was becoming more proficient as he taught himself."—Of Baron Cuvier, who perhaps more than any other man, brought to light the hidden treasures of our earth, it was also said, that "he at all times was under a good teacher, because he was always taught by Baron Cuvier."

When the student comes forth from the halls of learning and launches his vessel into the tide of public life, he must then, himself, turn it to the ocean, spread the mental canvass, grasp the helm, and navigate the difficult channels of thought. If he would then fathom the profound, he must himself dive, alone: or if he would soar through the regions of fancy, he must throw out his own wings to the gale, and beat an upward flight. If he would move the world, he must first move himself. From this period in the student's life his mind will be expanded or contracted in proportion as the theme of his investigations is great or small. Theme has much to do in the development of mind: if the theme be great, the mind will become great: if the theme be diminutive the mind will become diminutive.

In looking at an object of great magnitude, the eye dilates or expands to grasp it; but to look at a mere speck renders the eye convergent. This is no less true of the mind. If our mental prospect be expansive, the mind will widen to the expanse; if it be limited, the mind will not exceed the limit.

Suppose two minds, whose mental organization and capacities are the same; let the one take hold of a diminutive theme, with contracted and circumscribed views, never suffering itself to expand into the wider latitudes of thought, and it pursues a course, that will inevitably converge the greatest powers of mind down to a mere point; while the other, grasping its mighty theme and indulging in the liberal survey, becomes developed as its theme expands. The reason why the mind of the Christian philosopher, Thomas Dick, became so world-wide was simply because his *theme was the world.*—Why was it that the mind of a Newton became so spacious as to admit an ideal solar system, except that the *Solar system was his theme?* And that the mind of the needle maker is scarcely capable of containing an idea larger than a cambric needle, can be accounted for only on the principle, that *needle making is exclusively the contracted theme of his study.*

Again: as mind is brought in contact with the popular movements of the age, it will be developed. The annals of the past, the biographical sketches, the local and public memoirs of great men, show that in a majority of cases their powers of mind have been called forth, by the moving, impelling spirit of their age.

During the period of Grecian glory, while, on the summit of the Acropolis, the ancient Parthenon was dedicated to the virgin Goddess, perfection in art and science, in war and eloquence, was the popular motto of the times. The popular spirit of that age called forth the remarkable powers of Phidias, who, before the west front of the Pentelican marble Parthenon, constructed the magnificient collossal statue of Minerva in Bronze, and left some of the most exquisite marks of his skill, undilapidated by the passage of two thousand years, on the pediment that rose above those elaborate pillars supporting the grand porticoes of the Minervan Temple.

Amid the incentives of that popular age in Greece, her noble sons of science arose, the tongue of eloquence was moved, the blade of war flashed with a Grecian wield, the lights and shades of the painter's canvas spake silent beauties to the eye, architecture reared its magnificent domes, and the smooth strains of poetry floated softly as an evening zephyr. The same results attended the popular impulses of ancient Egypt, as well as of the Republic of Rome.

But we are not compelled to traverse the regions of the past, to obtain illustrations of this principle. The annals of our own National history afford them in abundance. In the time of war, we have had some of the bravest warriors that ever entered the field! In the time of peace, we have had some of the noblest statesmen that ever entered a senate hall. Why was it that in that stirring appeal of Patrick Henry to his fellow-citizens, when with heroic decision, he uttered that sentence of invincible patriotism, "*Give me liberty, or give me death,*" that all the powers of his soul were called forth, except that he felt his country trembling under the invasions of a foreign power? Or why was it that the immortal Washington—at the mention of whose name the world becomes reverential—displayed the powers of so great a mind, in the signal victories of an American Revolution, if the spirit of independence —if the spirit of American liberty was not moving the colonies to strike for their homes, their firesides, their altars, and their God? But we may pass from the fields of the Revolution, where the spirit of liberty struggled in blood for independence, to the halls of an American Congress, and after we have been held breathless by their voices, we may enquire, why did a Clay, a Calhoun, and a Webster—that triple but death-quenched constellation of American eloquence—display such volume of mind, in the political arena of our country, except that they were moved by and wedded to republicanism, as to the virgin paragon of our national glory?

Thus the popular impulses of ancient and modern times, have been incentives to the development of mind.

But again, mind is not only developed by the popular impulses of its age, but it is as often called forth by the opposition that it meets. Popular favor may have coaxed out its flattered intellects, but popular opposition has been a spur to as many.—Mind does not always flourish best in a favorable soil, or a salubrious clime; but like the cedar planting its roots amid the edges of dry and sterile rocks, its leaves neither wither nor fall amid the wintry blasts of opposition. Mind that is cradled in adversity is commonly the most mighty; as the oak, that is rocked by frequent storms only strikes its roots the more deeply, only throws out its branches the more widely, and only lifts its head the more loftily.

Public favor often becomes a couch, when faint ambition sinks to repose and obscurity; but public opposition, as often plants a thorn in the pillow when mind would slumber, which pricks its ambition, rouses its energies, and goads it onward to bold and resistless developement.

The little stream that flows from beneath its moss covered rock, and steals like a silver thread down the mountain slope, soon swells to a river-size, in the valley, where the manufacturer throws his dam across its bed from shore to shore; but soon it rises equal to, and with an unconscious daring, dashes over all obstructions, and rolls onward widening as it flows. Thus rising mind, with a conscious daring, leaps on the summit of its obstructions, and from the elevation but plunges off further into the widening latitudes of development.

Public opposition, which is often designed to crush the rising intellect and make it trail its broken wings in the dust, as often drives it upward on the ambitious pinions of ascending intelligence, as the eagle, which, at the approach of the storm, is driven from his native rock, but instead of plunging downward beneath the cloud, throws his strong wings to the gale, blenches the lightning with his eye, and circles aloft to that serene height, whence with firm hold of the air, he looks down with conscious superiority on the raging elements below.

Return with me back to the middle of the sixteenth century, while King Charles sits on the throne, holds the reigns, and wears the regal crown: approach those massive walls, throw back those iron doors, look far within that gloomy cell, and behold, in the dim light of that silent taper, the incarcerated Bunyan; though shut up from the native light of the sun, yet his mind was radiant with the mingling beams of the mental and the divine; tho' persecuted for his sentiments, yet his persecutions but spurred him to greater exertions! though forbidden to preach an oral Gospel, he grasped the pen and from the dark shadows of a Bedford jail, he threw a beam of light along the rugged pathway of the Christian pilgrim, as well as hung a wreath of glory on the brow of sacred literature in his inimitable allegory,—*the Pilgrim's Progress.*

Or turn to the rocky heights of Wartburg, to gaze upon the imprisoned spirit of the glorious reformation; and you see in the protestant Monk, that defying intellect and uncompromising religion, that dare the Pope, and cause the hierachial world to tremble ; for

"So spake the youthful cherub, and his grave rebuke,
Severe in youthful beauty, adding grace invincible,
And abashed the devil stood."

Again, as mind is brought in contact with other minds, it will be developed. The contact of two minds induces the powers of each. We are communicative beings; eye speaks to eye; lip speaks to lip; and soul communicates itself to soul. Although we are distinct in existence, yet there is an organic identity of mind that enables each to accommodate itself to the capacities of the other; and though one mind cannot be resolved into the nativity of another, yet by the avenues of contact, mind reflects itself back upon mind, soul is mirrored back upon soul, thought resolves itself into kindred thought. Thus by a contact with each other a current of intercommunication is formed, upon which is carried forward the accumulating commerce of mind.

When two substances of unequal temperature are brought in contact, a process is at once commenced which produces an equilibrium of temperature.—Nor is it less the case, when minds of unequal intelligence are brought together, that the covtact has a tendency to result in mental equilibrium.

Each morning as the sun bursts the portals of day, and throws a broad sheet of light across the heavens, the earth, regenerated anew from its dark mantle of shadows, developes its rugged features, its reposing lakes, and beautiful landscapes, as the light of the sun increases upon its surface. So when that mind that has been wraped up in the untrodden shadows of ignorance is brought in contact with the scientific, artistic, or literary mind, it will be developed in proportion to the light of intelligence with which it forms a contact.

The contact of mind, not rarely produces a rivalship of intellect, than which there is not a more prolific source of mental development.

Rivalship has produced its illustrious characters in all ages of the world, in all departments of the social compact, in barbarous as well as in civilized nations.

The world in its applauses has adopted the universal motto "*The crown for the head of the victor.*" In those celebrated amusements of Greece, at the public Gymnasium, the Olympian antagonists in their rival games demanded every energy for that victory that would be distinguished by the CROWN OF WILD OLIVE; and in the Pythian game, the rival struggle was for the due-victor *crown of laurel*, which crowns were always awarded amid the shouts and laudations of an enthusiastic populace.

But as the world has advanced in civilization, literature and religion, a strife for knowledge has become the public gymnasium of rival intellects.

Our schools are the grand theatres of mind, where all are striving to excel in the classics and the sciences: where each pupil is struggling with the other, to stand before the lauding world, as the *crowned victor.*

Why is it that the enthusiastic Sophomore comes forth parading on the stage in tones of pompous oratory, if he is not flattered by the "*deceitful fancy*" that he is a rival of Demosthenes or Cicero.

If the youthful frame of Pollok in Scotland wasted under the wide spreading branches of the domestic elm, while producing his ornate "*Course of Time,*" was it not partially, because Milton had preceded him as an unrivaled orb in the fermament of poetical glory ?

Why did the following lines drop from the pen of a modern, if he did not wish to rival the ancient Bards ?

"Great Spirit! that infused poetic fire,
And taught old Bards to sweep the sacred lyre,
Teach me the muses now sublime to trace
Through measured ages, and unmeasured space;
Nor 'neath their lofty flight of measured thought
My numbers leave with equal fire unfraught;
Nor leave my ardent soul, in vain to strive
The equal depths of their profoundest dive;
But from the centre to the utmost pole
Teach me by equal step with them to stroll."

It was by the shock of those rival minds, wherein the vehement denunciations and powerful appeals of Cicero drove Catiline from the Senate hall, that Cæsar was found trembling on the throne of a Roman Empire.

But never perhaps did the glories of mental contact burst with more surpassing splendor upon the awe-struck Senate, than when Hayne of the South, and Webster of the North, pronounced their rival speeches before an American Congress.

We have thus, imperfectly, gone through with some of the external causes tending to the development of mind.

Now, in conclusion, let me say to you, members of the *Conemaugh Teachers' Institute:* Your position in society is truly elevated; a position that must win for you, the respect and sympathies of all with whom you mingle; and as you leave your impress upon the minds of all your pupils, that impression shall survive your own dissolution, and leave the stamp of its influence on future society. With one lighted candle, a thousand other candles may be lighted, before its flame expires; so the teacher may thus be compared to a lighting taper, by the flame of whose mind the lamps of intelligence may be lighted up in a thousand other minds. The teacher, more than any one else, is the source of light in the intellectual world. Your position calls for proficiency. Proficiency is the reward of effort.